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Fashion or Truth?

WHAT is one to do when he finds himself hopelessly out of *rappor*t with the spirit of his times?

The tide of professional thought and endeavor sets strongly in a direction of which he does not approve. Shall he allow himself to be swept into the current and be carried in the same general direction, seeking only to provide for his own interests and endeavoring to ride the waves instead of being submerged? Or shall he stand like a rock in the stream and deflect at least a portion into the better channel?

The trend of the medical movement is toward the specificity of disease, and to its treatment by means directed against each malady as a pathologic entity. The type of a remedy is *antitoxin* directed against diphtheria *per se*; applicable to every case, regardless of individual features, age, sex, race, symptoms, strength of patient, vehemence of attack, points of least resistance and greatest peril, environment, and accessory causes impelling toward malignancy and death.

The *treatment*? Over against the word "diphtheria" is set the other word, "antitoxin," and woe be to him who dares attempt to add aught thereto. Let his name be anathema. I have heard men in medical meetings demand that he who dares

utter another word on treatment of diphtheria be refused a hearing! The truly scientific chap falls in line, and looks for therapeutic advance in serums, opsonins, salvarsans, and similar specifics.

I simply can not and will not fall in line. It is of very little moment to the world or the profession that any one individual should stand aside from the crowd and be neglected. It means a very great deal to the world, and more to the medical profession than to any other, that the man in whose mind is implanted the conviction of a truth should adhere to it. The freedom of humanity today is built on sturdy old Luther's declaration: "Here I stand, God help me, I can not do otherwise!"

The way of progress for us does not lie in the development of specifics for disease, but in the study of physiology, the detection of aberrations from physiologic function and their correction. Earlier, still earlier, we must learn to detect the beginnings of disease and the causes at work; to remove these and restore harmonious, equable activity to the organic functions. It is not the illustrious orator in the school, the skilled specialist, the daring wielder of bistoury and of scalpel, the accomplished manipulator of test-tube and reagent, of microscope and stain. It is *you*, *you*,

YOU, who must do this work; the Doctor, unlimited, the greatest of specialists, he whose specialty is the man himself, not any single organ or region or tissue or function.

The way to study and treat cases is to individualize them, not take them *en bloc*. The time to take cases is in the beginning, before irreparable damage has been done. The way to treat patients is to strike at the causes of disease, to remove these, the foundations, when the malady will fall of itself. This means individual study, early study, steady surveillance; and this again brings us to the noblest of our duties, the prevention of disease, and its arrest in its very incipency.

Irresolution is a worse vice than rashness. He that shoots best may sometimes miss the mark; but he that shoots not at all can never hit it. Irresolution loosens all the joints of a state; like an ague, it shakes not this nor that limb, but all the body is at once in a fit. The irresolute man is lifted from one place to another; so hatcheth nothing, but addles all his actions.—Feltham.

ILLINOIS AND MEDICAL EDUCATION

A great deal has been said by a very few men about the deplorable condition of Chicago in the matter of medical education, and in the heat of this discussion The Illinois State Board of Health, which is our examining body, has been severely criticized.

We do not care to open the old discussion or to go over the ground again, but we would suggest that some of the captious critics, who have found in Illinois everything that is bad and in Baltimore and Boston practically everything that is good, should investigate some of the work which has been done right here in the State of Illinois for the advancement of medical education and the protection of the medical practitioner.

It is true that we have many colleges—too many. But this excessive educational activity, after all, is nothing but the outgrowth of the surpassing energy of the West, so strongly exemplified in the Chicago spirit. Incidentally, the weaker colleges are being weeded out or, what is even better, made stronger.

Not everyone knows that a Chicago institution—the old Chicago Medical College, now the medical department of Northwestern University, was really the pioneer in the new medical education. This was the first school in the country, we believe, to introduce the three-year course; it was one of the first to insist upon four years of study for the practice of medicine.

So, also, Illinois was one of the first states of the Union to insist that adequate qualification should be required from the men desiring to enter the profession of medicine. This state was one of the earliest to require an examination of candidates desiring to enter the profession. It was the pioneer in advocating reciprocity between the different state boards, this much-to-be-desired movement having been instituted largely by and owing much to the energy of the Secretary of the Board, Dr. James A. Egan.

The Illinois Board was also the pioneer in the matter of allowing credit points to a physician for a certain number of years in actual practice. Ten years ago candidates from any other state were required to pass exactly the same examination before the Illinois Board and to make exactly the same grades irrespective of whether they were just out of college or had been in the harness fifty years. This manifestly was unfair to the old practitioners, hence the Illinois Board decided to allow a credit of one percent on the average rating for each year of *bona fide* practice since graduation. More than twenty states have, since then, followed the example of Illinois in thus giving the older practitioner the square deal.

The Illinois Board was also the pioneer in requiring a photograph as a means of identification of candidates. Probably a dozen states have followed this excellent example. Illinois is the only state that requires the physician by whom the candidate is introduced to certify to this photograph, which the applicant must have on his table before him throughout the examination. Numerous frauds have been perpetrated upon other boards by men who have hired substitutes to go through the examination for them.

Besides being the examining body for physicians, The Illinois State Board of Health is also the examining body for the embalmers. Furthermore, it is charged with the supervision of and enforcement of the health-laws of the State. The duties devolving upon it are enormous, and they have been met with marked ability, in spite of the lack of cooperation on the part of those who should support it at every point.

It is to be regretted that a small number of irresponsible self-advertising muckrakers should be able to secure a hearing in the public press, for their sensational and defamatory attack of this great official body that has done so much for the physicians of this State, and incidentally of all other states of the Union.

William Dean Howells, discussing realism at one of his Sunday afternoons in New York, let fall a neat epigram on hope.

"Hope," said the famous novelist, "is not, really, an angel in a diaphanous robe of white, but only the wisp of hay held before a donkey's nose to make him go."

WILL FASTING KILL PATHOGENIC MICROBES?

A curious controversy is being waged in the columns of *The Critic and Guide*. Upton Sinclair, of "Jungle" fame, declared that syphilis, gonorrhea, and malaria could be cured by fasting! Editor Robinson, in denying this assertion, promptly offered to put up \$1000 against a similar sum, to put the matter to a critical test. Sinclair quite as promptly backed out, thereby demonstrating the depth (?) of his belief in the things he advocates.

All this is trite, the commonplace experience of every American who knows the game of bluff.

However, there is a deeper significance to the seemingly trivial incident mentioned. It indubitably furnishes evidence on the mental status of the laity as regards matters medical, and that deserves some closer consideration.

Let us assume that Mr. Upton Sinclair is, not so much his individual self, as the representative, the average man, of his class—the ordinarily educated and intelligent newspaper-man or *litterateur*. He

would certainly claim to be that much, and undoubtedly rates himself much higher. He has succeeded in getting into the lime-light and has a following. Many may have been impressed by his work and are ready to accept his dicta as possessing a certain measure of authority, or at least as deserving consideration. As such, he ventures into the department of a special calling, a profession held by men of particular education and training, and to these specially instructed men he delivers opinions concerning their affairs, with a force and self-confidence that carry weight with men of his own type as well as the vast masses of less qualified judgment.

Instances are not wanting where men of superlative genius have instructed specialists in the latter's special sphere; as, when Napoleon pointed out to Talma an error in that great actor's conception of a character he had represented. But Napoleons are rare, and Sinclair is not a Bonaparte. Besides, the views of an emperor at whose feet all Europe lies are apt to be accepted as law, if not as gospel.

To the physician, the absurdity of Mr. Sinclair's assertion verges on the grotesque. All three diseases are of parasitic nature, syphilis and malaria being due to animal organisms, and gonorrhea, to a coccus. That either could be in any manner affected by fasting is as likely as that pediculi capitis could be banished by that means. In fact, Dr. Robinson would do well to propose phthiriasis as a better malady in which to make the test, since the laity could judge of the results more readily than in dealing with microorganisms demonstrable only by the delicate methods of the biologic laboratory. Such a test surely would prove instructive to the rash Mr. Sinclair, and the easy gradation from a parasite visible to the naked eye to those that require the compound lens for their disclosure might result in an increase of his wisdom—also caution.

In every vocation of man there are to be found amateurs and professionals. Sometimes the former score off the latter; and then there is a howl of delight, for the crowd always sympathizes with its own and delights in going against the exclusive.

Very much more often, though, the amateur falls into error, making mistakes born of his own ignorance of the fundamental things everybody must learn who takes a regular course of instruction—but still the crowd sympathizes with him, because “he couldn’t be expected to know.” True, but this self-same amateur should have realized his own ignorance before he proceeded to interfere.

A costly machine may be ruined by an ignorant interferer—and there is little consolation to the owner to be told that the rash one’s intentions were good. What piece of machinery is as complicated and delicate as the human body? Nevertheless the rule holds good here.

A Pennsylvanian took his daughter to a quack, who diagnosed “a cancer humor in the blood.” To bring out the “humor,” he applied a strong solution of corrosive sublimate to her skin. The result needs no description at our hands, but patient as well as quack saw in the angry appearance of the skin the confirmation of the diagnosis. Again the caustic was applied, and it bit deeply into the tissues. A third application followed, and the girl died in the torments of the inferno, slowly burned to the bone.

At the trial the pretender to medical skill swore he really believed the destruction was the cancer humor coming out, and that he did not know the effects of the caustic he was applying; on which plea he was acquitted. The judge ruled that it was the father’s duty to satisfy himself of a doctor’s qualifications before entrusting his child to him; and that, when so accepted, if the doctor did his best so far as his knowledge and skill went, no more could be expected. The deception due to his claim of skill he did not possess seemed to be out of consideration.

This shocking catastrophe is by no means a solitary example of its kind; every community could furnish others, some quite as bad or worse.

There was that case of the man with the ankylosed knees. The doctors had refused to make any attempt to straighten the crooked legs, but there was in the vicinity one of those “natural geniuses”

to whom such matters “come easily”, and this fellow undertook to accomplish the cure. Finding the victim’s limbs resisting his utmost strength, the man applied his homely, everyday common sense to the problem in a way that commended itself to all present. He had the barn-door taken off its hinges and brought to the sick-room, laid the patient on the floor, put the door on top of him, and the “doctor,” with two others, got on the door and “tramped”! Yes, and they actually straightened the crooked legs, so that three days later the man fitted into an ordinary-shaped coffin without any difficulty whatever.

Of a piece with this was an incident related not long ago in a drug journal. A woman applied for treatment, saying her child had swallowed some foreign body. The clerk replied that he did not know what to recommend, and she turned to leave; when another clerk, who, the journal remarked exultantly, was a *salesman*, stepped forward and advised a bottle of magnesium citrate. The sale was made, and the clerk was commended for his astuteness.

Neither the druggist nor the editor in this case seemed to have a glimmering suspicion that the patient’s life was imperiled by thus liquefying the stools that otherwise might have enveloped the foreign body and conducted it harmlessly through the intestinal tract. Had death followed, the clerk might have truthfully plead that, as he was not a doctor, he should not be expected to know the danger following his treatment. The public would generally have accepted this plea and the court sustained it; although to us it seems that, since the woman applied for advice on the assumption that the clerk was qualified to give it and the latter accepted that assumption and gave the advice that resulted in death, both moral and legal responsibility should attack.

To impersonate an officer is sure to be followed by penalties if trouble results and the impersonator is caught. Is it less reprehensible to impersonate a doctor?

The remedy is the education of the people by ourselves. It does not take long to convince men that a costly watch should not be handed over to “just anyone” to tinker

at, but must be entrusted only to an expert, known to be such.

If each of us were to do his individual part of this general duty, we should soon find the public realizing that there are experts in detecting and remedying defects in the working of the human machinery. We should hear less of dormant hipjoint disease aroused to activity by imprudent "osteopathy"; of children dying of easily curable disease because their parents were "science"; of people passing along to the incurable stages of maladies because they were exhorted to "forget it" when the first warnings of nature were given; of women's lives wrecked because the husband-to-be had entrusted the treatment of his gonorrhea to the corner druggist; or of the innumerable instances where neglect and ignorance aid the enemies of human life.

It's our own fault that these things are so—why not change them?

"There are two classes of people who through their calling work habitually against each other: the first are the cooks, who work toward the production of disease; the second are the physicians, who strain every effort for the cure of disease. —Tissot.

CONSISTENCY, THOU ART A JEWEL!

JEWEL NO. 3

Every once in a while we get a letter something like this:

"DEAR DOCTOR ABBOTT: I have been a subscriber to your journal for almost fifteen years, and I have always admired your independence, your fearlessness and your fairness. I stood with you when you put up that big fight a few years ago, and wrote you privately to that effect at the time. I use some of the 'alkaloids' in my practice, and have occasionally contributed to THE CLINIC. But I am through! Last month you had an article on "The Etiologic Relationship of Pumpnickel and Pip," by Dr. Septimus Sextus, M. D., of Pumphreyville. I know Dr. Sextus, and I know that he is physically bow-legged and cross-eyed, morally perverse and mentally twisted. His article is twaddle, an insult to every self-respecting home. I am surprised that you should publish in your previously excellent journal anything that

goes so decidedly counter to all the opinions of the best authorities. Take my name off your list at once. I beg to remain, sir,

Indignantly yours,

OCTAVUS DIXIT, M. D., PH. D."

There are many men who admire you as long as you agree with them, but who are intolerant of anyone who sees things in a different way from what they do. Such men often talk loudly of freedom of thought and the glories of an untrammelled press, but give them a free hand, and a Servetus would be burned or a Priestley stoned in every hamlet of the Nation. Do you know Dr. Dixit?

O, Lord, give us courage this day to ask for a profit on our work.—"Ben Franklin Messenger."

"EVERYBODY"

The readers of CLINICAL MEDICINE constitute a great big family, and undoubtedly one reason for its popularity is that every individual in this "family" feels a personal interest in every other member. We talk things over in these pages without restraint, in a most "heart-to-heart" sort of way, and if anything appears in the journal's pages which interests us very much, some one is pretty sure to write to the author and tell him about it. It is a frequent occurrence that we hear from those who have contributed that they have received hundreds of letters as a result of one short article. That's right. This is exactly what every one of us who writes needs to keep us "up to the mark."

So, if we see anything in THE CLINIC that we like, or that we do not like, let's write and tell the author just how we feel about it. Won't you all do so? There is nothing that cheers a man more, when he has labored hard to bring his ideas to the attention of others, than to feel that his work is appreciated. Of course, every man Jack of us wants praise, but we—most of us—would far rather be criticized than have no attention paid to us at all.

So I hope that every time you go through the pages of this journal you will mark carefully the things that you approve or disapprove, and then write the "culprits"

and tell them just exactly how you feel about their articles.

The same as to the advertisers. We could not get out *CLINICAL MEDICINE* for twice the money it costs you if it were not for the support afforded by the income from the advertising pages. And, do you know, those same pages are of immeasurable importance to all of us. They constitute the current record of all that is new and best on the commercial side of medicine and the allied industries of interest to physicians.

The man engaged in business who does not read the advertising pages is going to become a back number; in fact, I believe that in a large number of the current periodicals published the advertising section is the most valuable part. Anyhow, scan these pages of *THE CLINIC* closely, and if you see anything there which interests you or about which you believe you ought to have more knowledge, sit down at once and write the advertiser and ask him to give you the information desired. It will pay you.

Take our advice, and you will simply be surprised and astounded at the amount of helpfulness you will get out of such correspondence, both with the professional brethren in the field who are writing and with the commercial men who are also working for your benefit in making and selling things they believe you ought to possess.

It would be a good plan for you to go through this journal every month with pencil in hand, marking this point here and that argument there, making note of this advertiser's name and of that man's product. If you do this and write these people, it will not be long before you will build up a correspondence that will not only be personal and friendly in character, but of immense educational value. Try it, by all means!

WHY THE NIHILIST?

It does not seem surprising to us that there are therapeutic nihilists. It would be amazing if there were none.

The nihilist is generally a man with brains. When he does something he wants

to see some result of his efforts. He is the original "man from Missouri." If he has given tincture of aconite repeatedly and there has been no pharmacologic response; if he has been time and again equally unfortunate with digitalis, with belladonna, hyoscyamus, and other medicinal preparations, he certainly has good excuse for becoming a nihilist. If he has failed absolutely, unquestionably, with these remedies, which are "official," which have the stamp of authority, and possibly are furnished on his prescriptions as "standardized"; if in spite of all he can do they fail to produce the expected remedial results, what can he conclude but that the whole *materia medica* is useless—yes, and dangerous?

It is the do-nothing drug which makes the do-nothing doctor. Therapeutic nihilism is the legitimate offspring of the galenic system.

The factors of uncertainty, of variability in the quantity and proportions of the proximate principles, of decomposition due to age, heat and climatic conditions, and of "natural" polypharmacy, are constantly present in these preparations, which accordingly are never twice alike and rarely give identical results. How could a carpenter build a house if he depended on a foot-rule which was 13 inches long today and only 3 inches long tomorrow? How can a physician secure success with a drug which is too strong today, tomorrow absolutely inert?

The men who employ the alkaloidal and active-principle remedies, which are uniform in dose, always potent, always capable of producing effect, do not question the utility of drugs. These men do not guess at drug action, they know, and knowing, they achieve success.

Where the nihilist makes his mistake is in closing his eyes to everything except his own failures. Strong men are the most prone to conclude that because they have fallen short of success, every other man must do the same. As Prof. Reynold Webb Wilcox says: "The nihilist impedes progress by his captious criticisms of methods which do not appeal to his limited understanding and information, and by the

loud asseverations based upon his own failures."

The therapeutic nihilist is an intense man, a man who has learned to concentrate his efforts upon his own field, too often a narrow one. He should learn to broaden out, to look beyond his limited understanding into the experiences of others, and there seek the secrets of mastery.

We venture this prediction, that when the masterly analytic and constructive minds of some of our great "nihilists" are concentrated upon the possibilities of active-principle medication, this foolish talk about the slight value of drugs will cease to come from within the medical profession. The reform is at our very doors. When the nihilist becomes sufficiently imbued with the spirit of progress to turn aside from his "captious criticisms" and really begins to study and work with us for the betterment of therapeutics, abandoning the outlived and the outworn, he will become an enthusiast, an optimist, and most important of all, a better doctor.

No, we don't blame the nihilist—except for clinging to antiquity, for tying his efforts to paleozoic pharmacy. But we do wish that he might awake from this sleep of the centuries—awake to the possibilities of this wonderful twentieth century.

Cheer up! Look forward! Boost! Do these and you can speedily put *Cosmos* on your pay-roll.

THE NEW HEALTH COMMISSIONER FOR CHICAGO

In view of the peculiar local complications, political and otherwise, confronting Mayor Harrison, the appointment of Dr. George B. Young as Health Commissioner of Chicago strikes us as an excellent solution of the problem, and as one which could not have been improved upon.

The fact that Mayor Harrison has gone to the U. S. Public-Health and Marine-Hospital Service for a man to fill this highly important position is not only a well-merited compliment to the Service, but it is also an exceedingly wise move in the interest of a city of the importance of

Chicago, because the personnel of the U. S. Medical Service consists of the most highly trained and efficient sanitarians in the world. It is not in a spirit of boasting that this assertion is made, but a simple statement of a well-known fact when we claim that the physicians connected with the U. S. Public Health and Marine Hospital Service yield to none in their scientific and practical attainments.

Another fortunate feature in the selection of Dr. Young as Health Commissioner is that it has taken the position out of the field of political wire-pulling, out of politics altogether—and this is as it should be. The head of the Chicago Health office should be selected entirely for his scientific attainments and his knowledge in matters sanitary and hygienic, for his efficiency in dealing with the large problems that are submitted to his decision, and the service should not be jeopardized by any consideration of political pull or political gratitude.

We heartily congratulate Chicago on her new Health Commissioner; we congratulate Mayor Harrison on the wisdom of his selection, and Dr. Young on his appointment. We also congratulate the U. S. Public-Health and Marine-Hospital Service on this acknowledgment of its high standing.

CHICAGO MEDICAL SCHOOLS

"Thirteen medical schools in Chicago have no moral nor legal right to teach medicine." This was the startling statement made in the report of the Committee on Medical Education of the Illinois State Medical Society, as read by Dr. J. F. Percy of Galesburg. This statement was not allowed to go unquestioned, and the whole report, which was full of sensational charges against Chicago schools and Chicago physicians, received the unanimous opposition of the delegation from this city, and was killed.

The schools which are assaulted assert that the "investigation" made by members of the committee was cursory and incomplete, characterized by no judicial attitude, but rather by unfriendliness from the beginning, and a desire to "make a case."

While CLINICAL MEDICINE does not intend to enter the lists in defense of any of these institutions, it does seem significant that the wonderful improvement in teaching facilities and material equipment as well as in the personnel of the instructors in these Chicago institutions receive no word of commendation from the committee. We are proud of great institutions like Rush, Northwestern, and the College of Physicians and Surgeons, but we are also gratified with the progress made by other schools. Every one of the institutions attacked is superior, in almost every respect, to the Rush College of ten or twenty years ago, of which some of us are proud to be graduates. We should encourage them to keep on growing better.

In our opinion, the cause of better medical education in this city is not advanced by attacking the characters, or questioning the motives of the profession in Chicago, or that part of it engaged in medical instruction. Any man who knows local conditions can tell you that some of the brightest minds of this country are connected with the colleges which Percy and his associates have gone out of the way to assail. An assault by men of his caliber upon The Chicago College of Medicine and Surgery, Bennett Medical College, and Hahnemann Medical College, including in this assault aspersions upon the student body, the faculty and every one associated with them, is a blatant example of medical Phariseeism and bad taste.

A man who dares waste an hour of time has not learned the value of life.—Charles Darwin.

ALL MEN EQUAL?

How true is it? According to the constitution of the United States, every man in the world is born free and equal. Since the days of the French Revolution this grand generalization has been accepted as truth itself. In America it is true *de jure* but not *de facto*. Politically, it is perhaps true in the fact that to every individual is guaranteed, by the laws of the land, equal rights, and he gets these provided he is wise enough and strong enough; but anthropologically, the truth is nearer the opposite,

that is to say, that no two individuals are born with equal possibilities.

Woods Hutchinson has recently said that all are born equal, and that the difference in men is simply one of training or environment; but, then, we all know Woods, and how dearly he loves to say things.

No educator who ever endeavored to study the pupils under his care would for a moment admit even a close similarity in their mental endowments. Those who have studied this question most discriminatingly are almost unanimous in the assertion that between the various races of men there is a radical difference, and that, whereas a certain education is a possibility to the Caucasian, it does not by any means follow that the same education is a possibility to members of other races without a mixture of Caucasian blood.

Some of us know that to us music is an unlearned thing. To the scion of a line of learned forefathers the acquisition of booklore comes like the recollection of forgotten knowledge. To others the same task is a demand upon neurons unpossessed of inherited aptness for such work. Note the helpless way with which such persons gaze at the problems which to the inheritor of learning seem so easy, and then say there is nothing in the heredity of brain culture.

It takes keen observation, sometimes, to discriminate between the leader, the advanced thinker, and the beneficent iconoclast, and the poseur. Some men are unfortunate in having once said something worth while and henceforth feel they must work to sustain their reputation as—

" a mighty wit,
Upon the strength of some chance hit,
Among a thousand flippancies."

Smartly turned phrases, apt epigrams, iconoclastic attacks upon universally accepted axioms or beliefs serve to bring the perpetrator into the limelight but are never just, rarely true; never legally so in the sense of being the truth, the whole truth and nothing but the truth. Hence they never give an exact veracious idea of the subject, yet they are universally accepted as doing that very thing.

No two men are alike or anything nearly equal in mental gifts or capacities. There are innumerable stopping places along the mountain-sides, and each is tenanted by a single individual. It may be that each *could* have risen, but, certainly, he didn't. What is—is, and has reason behind it. We can only reason safely from actualities; beyond lies the region of conjecture.

With many persons, their greatest fault is their inability to estimate values. The best wisdom is to know what is worth while and what is not.—Frank Crane.

STOBS AND REAL PEOPLE

Always ride in a Pullman, do you? Just a bit proud of it? Like to plume yourself on being somebody, not one of the common class?

Coming east from the Pacific Coast once, I took a tourist sleeper; primarily because I felt I had more urgent use for the seven dollars than George M. Pullman had. You know what you get in the "standard" sleeper—a lot of folk who look as if they were afraid you were going to speak to them. You read, doze, look at scenery till it palls on you, play (or think) solitaire, look at your watch to see how long till next mealtime—not that you are hungry but as a welcome respite from the monotony—or you go into the smoking department and listen to the drummers' stories, if you still retain any tolerance for that sort of thing.

In the tourist was another class of people: men who had established homes and were going back for wife and family, young folk coming east to school, returning soldiers from the Philippines, men who had been west to see and invest, and so on. These people were so neighborly! Mealtime came, and the woman who makes coffee brings you a cup. Lunch-baskets replace the dining car, and the contents are shared. Talk is animated, everybody seems to have something to say in which the others are interested, and you learn a whole lot at first hand that is not as the magazines tell.

This is the Real Thing, and these are the real people. How nice they are—and smart! Hard workers, shrewd planners,

with a world of good sense and energy. And others feel this, too. Before the trip is half over a dozen of the Pullman folks are spending the best part of the day with us—and when they thaw out they're not so bad either. They, too, turn out to be like the rest of us—just folks. Even the insufferable prig who corrected a stranger's pronunciation turned out better than one would have expected and made you realize that he might have been fairly human if he had been caught when he was young.

I left the train feeling that I had never enjoyed a trip so much, or found one as instructive. Probably this acknowledges the writer's origin and station—just *hoi polloi*—at least he hopes so.

But, my fastidious friend, before you assert that you "never travel except in a Pullman" ask yourself whether you do this because you really prefer the conditions there or because you feel it necessary to keep good your hold on "society"? And if you really plume yourself on associating with the possible social magnates as represented by the special Pullman crowd, do they feel as proud of you?

What rot!

"A thing for laughter, fleers, and jeers,
Is American gentility."

Same with doctors. Get hold of a good, solid old country practitioner who has been in the work twenty years and get him talking; and if you *can* learn, he'll teach you something worth while.

It is not the size of the dog in the fight that counts, but the fight in the dog that wins.—A. G. Lewis.

IPECAC IN DYSENTERY

In *The Bulletin of the Manila Medical Society* for March, 1911, Captain Vedder discusses the value of ipecac in the treatment of dysentery. Much contradiction has ensued over this remedy, Manson and others lauding it, and Shiga condemning it unreservedly. This discrepancy is common enough, of course, and explicable when the cruder drug preparations are under consideration.

Dr. Vedder's first experiments were with agar cultures impregnated with ipecac. With Shiga's, Flexner's, and Morgan's

No. 1 bacilli, also with bacillus typhosus and bacillus paratyphosus, the 2-percent ipecac agars showed less growth than did the corresponding controls. With staphylococcus aureus, the growth was the same as that of the control. Digitalis, hydrastis, and opium, in 2-percent strength, were substituted for the ipecac, and each one gave good results, the first-named inhibiting the Morgan and Shiga bacilli completely, as hydrastis did that of Shiga.

The results were more decided when bouillon was employed: the controls developed innumerable colonies, while the ipecac-tubes showed none, excepting one lone colony of staphylococcus and three of paratyphosus. In the case of the three other agents, similar results followed, except that the Flexner bacillus was not checked by the digitalis or the opium and showed one colony with hydrastis, and that the Morgan bacillus gave innumerable colonies with opium.

The conclusions were: that 2 percent of ipecac inhibits the growth of the dysentery bacilli; the action is not specific, since other drugs do the same; the Shiga bacillus is more susceptible than the Flexner strain. The ipecac treatment, therefore, is not recommended.

Experiments on the amebas showed that ipecac is much more effective, as these were killed by a fluid extract in a dilution of 1 in 50,000, and sometimes in one of 1 in 200,000. Another brand of extract failed, but was found to be deficient in alkaloidal content.

Emetine proved amebicide in dilutions of 1 in 100,000, which was double the effectiveness of that of the best fluid extract of ipecac. The effect was attributed to this alkaloid alone and none to cephaeline, since the total alkaloidal strength did not affect the results, as did the strength of emetine alone.

This fact explains why the Rio ipecac has given the best results in practice, for in it emetine predominates, cephaeline being the principal alkaloid in the Carthagen variety. The remaining elements of the root were left in the deemetized ipecac tested, and this failed; so these can not be credited with curative influence.

Quinine proved effective in the test tubes in a dilution of 1 in 20,000, but failed in higher dilution. Silver nitrate succeeded in dilutions of 1 in 300,000, but this loses much strength when in contact with albuminous substances and with certain salts, leaving little of it to reach the upper colon.

Ipecac, given by the mouth, may reach all parts of the intestine. Emetine may also act after being absorbed and eliminated into the intestine, penetrating the deeper layers beyond the reach of local applications. While in the blood, emetine may even destroy amebas in the liver; which may explain Rogers' good results in treating hepatic abscesses with ipecac. One form of dysentery is caused by the balantidium coli. Ipecac killed a species of paramesium and a balantidium isolated from tap-water, as did emetine in a 1 in 100,000 dilution. Duncan reported a case of balantidium dysentery promptly cured by ipecac. Further trials of ipecac in this form are suggested.

Dr. Vedder concludes by recommending the treatment of ameboid dysenteries by ipecac, making sure that the due amount of emetine is present, and if this can not be proved by actual analysis, to insist upon the Rio ipecac. Whether we do get that is problematical, in view of the pharmacopeial authorization of the cheaper Carthagen variety.

An optimist is a fellow who will sit up at night to make lemonade out of the lemons handed him through the day.—W. E. Mason.

ARE WE "CALOMEL" DOCTORS?

A correspondent calls our attention to the frequency with which calomel is recommended in these pages, asserting that it has become a routine practice with us, and that we are getting to be calomel doctors. Are we, really?

That calomel was anciently abused nobody can doubt who reads the works on practice of a half century ago. Then physicians prescribed calomel until so many pints or quarts of saliva had been obtained as the measure of depletion. But since we have been in the profession, now more than forty years, we have never

seen or known or heard of a death from mercury. Have you? We have witnessed, and even caused, some instances of salivation, but in not a solitary case has it proceeded to the loss of a tooth or any other mutilation or permanent injury. Do you know of any such harm having been worked by this potent drug? Fifty thousand doctors read this issue of *CLINICAL MEDICINE*. Let every one who knows of such a case tell of it, and we will give the dread statistics in a subsequent number.

This is a day of broad sunlight. Prejudice and bigotry have no place with us. We want the truth. If you charge calomel with crimes or misdemeanors, bring up your evidence and let the culprit be tried at the bar of reason and adjudged in accordance with the testimony.

Looking over our files, we find that our correspondent is right in that we are in the routine habit of commencing treatment with calomel or podophyllin, or both, followed by a laxative saline. "There's a reason." Most patients are carrying about in their bellies a load of rotten feces, absorbing its decomposition products, and rational treatment begins with getting rid of this poisonous truck. It is preposterous to try to stimulate the eliminative glands until this load has been removed; or to give disinfectants before cleaning out the stables. The presence of this fecal accumulation is so universal a condition that the remedy likewise must be universal. Personally we have employed the method thousands of times, and never have known harm to result, and only very rarely has good failed to follow.

This is the distinct and comprehensive reason for our use of calomel, and a totally different thing from its ancient use as an antiphlogistic. As to the latter, its value, when properly employed, has never been disproved; but we live in the present and have neither time nor inclination to squabble over a dead issue.

This use of calomel as a means of emptying the bowels is the routine application of a general principle. Of course there are other cholagoges, and if one prefers juglandin, jalapin, or any other cathartic, there are no reasons why he should not utilize

them. But the fact that nearly everybody prefers calomel is significant. It is not our precept, nor mere custom; if the drug did not give satisfaction some other would soon be substituted. Saline laxatives are not used to prevent calomel poisoning, but to complete the work of the mercury; to sweep out what the calomel has loosened. Wunderlich noted that his cases of typhoid fever, in which calomel had been administered at the beginning, did better than those in which no calomel had been given; and a similar experience, not consciously noted perhaps, has undoubtedly led to the preference for this drug as an initial measure in this disease and in many others.

What has been your experience, respected reader?

Life, my brethren, am mostly made up of prayin' for rain an' den wishin' 't would cl'ar off.

A RATIONAL VIEW OF THE DISPENSING QUESTION

In pleasing contrast with the view taken by some other druggists' journals, that all doctors should be forbidden by law to dispense their own remedies, is the position of *The Druggists Circular*. In one of its recent issues it comments upon the letters of two gentlemen who are sure that the dispensing business is a menace to the public (and to them), and that doctors ought to quit self-dispensing or quit practising. In reply to the first communication on this subject the editor of *The Circular* says:

"Physicians can get along fairly well without the aid of pharmacists, and from all accounts some of them are doing so. If pharmacists think they can get along better without the physicians' trade and cooperation they should do what our friend, the writer of the above letter, is doing—abuse the doctors. If, on the other hand, pharmacists believe it would be to their advantage to keep on good terms with physicians, there is a way for them to do that, too, and a very simple way—prove worthy of the physicians' friendship and confidence."

Every word of that we can endorse. It's good sense and clean ethics. Even more pertinent is the editor's comment upon

the letter of the second writer, in which he says:

"In a recent issue of the *New York Times* appeared the following editorial note: 'Three thousand barbers have combined to demand the suppression of the safety razor by legislation. Do not laugh at them. They are following a long-established American precedent. They, too, have acquired the appetite for legislation. The safety razor hurts their trade, and the government must intervene.'"

If the advice given by the editor of *The Circular* could be taken earnestly to heart by pharmacists everywhere, they would not find it necessary to call for the aid of a law, essentially as absurd as the one the barbers want, to bolster up a waning business. Not only is it foolish to agitate for the passage of such measures, but it is poor business policy, as pushing the professions apart instead of drawing them closer together. We believe that the doctor should keep on good terms with the druggist, employing his services wherever he can advantageously do so; and we also believe that the druggist will find it to his financial betterment if he cultivates the physician and tries to serve him better along the lines of least resistance. That old saying about "driving a horse to water" is just as true today as it ever was.

LODGE PRACTICE IN BELGIUM

For many years physicians in Germany and other countries have made strenuous attempts to be relieved from the foolish and demoralizing obligations which they had entered into when the sick-benefit societies were first called into existence.

In our own country, we have, for years, had similar abuses to deal with. Sick-benefit societies, lodges, and similar organizations enter into a contract with their examining physicians to pay them a certain fee, say, a dollar per year for each member, for which the physician is obliged to attend to the members, in case they fall ill, free of charge. It stands to reason that such a remuneration is absurdly inadequate, and lodge-doctors are apt to give services far in excess of the fees received.

The only possible excuse for any physician to accept such a humiliating and lowering honorarium is that the money paid is reasonably safe and is, at least in the case of large lodges, a considerable sum paid at a certain time. Unfortunately in only few instances can the general practitioner count on definite times when he shall receive money, since his patients are apt to forget conveniently that they owe their doctor, and if they do pay, try to impress him with their benevolence in paying him at all.

A correspondent of *The British Medical Journal* for April 15 describes the struggle of the Antwerp Medical Society (*Cercle Médicale*) against the exploitation of the clubs (lodges) which has resulted in great success against the most determined opposition.

One of the points insisted on by the *Cercle Médicale* has been payment per attendance according to a fixed scale of fees. This was resolutely opposed by the clubs and various workmen's organizations and sickness-insurance societies, but owing to the solidarity of the profession in Antwerp, several of these clubs have been unable to obtain any medical officer, and they are gradually beginning to see the fatality of opposing the profession which is united to defend its rights.

Chief among the laws adopted by the *Cercle Médicale* to bind its members together is a form of agreement which every medical man signs on joining the Society, and the success of the Antwerp union, which comprises almost the whole of the practitioners of the district, has led the profession in other parts of Belgium to imitate this organization.

We fancy that the success of the Antwerp physicians was in a great measure made possible by the fact that they made themselves liable, over their signatures, to severe monetary penalties in case they should not live up to the agreement and to the rules of the *Cercle Médicale*. They obliged themselves, for instance, to enforce an increase of fees up to the tariff adopted. They agreed to pay an indemnity or fine of 500 francs if they accepted any vacant post in a sick-benefit society without the written permission of the union, and made

themselves liable to other penalties if they did not obey the decision of the majority of the members. While such a proceeding, although voluntarily assumed, may be irksome and may appear to interfere with the personal liberty of the individual, it was nevertheless unavoidable in order to enable the medical society as a whole to fight and to come out victorious in the struggle for existence.

The position of the medical profession in Antwerp today shows that physicians everywhere can improve their financial standing, which is absurdly low in our own country at the present time; and from such a proceeding it would inevitably follow that the medical profession would regain some of its lost prestige, lost through its own fault and carelessness. If, under this arrangement, some of the weaker members were to drop out because they could not stand the strain, that would simply be in the line of the survival of the fittest. It is not much use to talk about, it is necessary to act, and if associations of physicians will stick together and oblige other members to live up to the agreement and to the decisions of the society much good will result.

ORTHODOXY

"The really correct practice is *our* practice. It is difficult to comprehend how the other doctors can be so blind as not to see this the way we do. Now, there is and can be but one way to treat appendicitis."

"Certainly," breaks in the Surgeon, "the only remedy is the knife."

"But first test the accommodation," says the Eye-Man, "I could tell you of a most remarkable case—"

"Cut it out," roars the Gyn-Man, "all appendicitis comes from the pelvic viscera and are curable by a gyne—"

"Never mind that," cries the Nervy One, "as the brain presides over the whole body, and the appendix has a hole in it—"

"Go to," yells the Proctologist, "no sane man now dreams of any other treatment than dilating the sphincter."

"Nasal reflexes—" shouts Nosey—

"Inverted scabies—" howls Skinny—

"Pockets and papillæ—" shrieks the Rectal Chap—

"Why not cure it?" mildly suggested the Internist. Whereupon they all turned on him and rent him asunder.

INFANCY, AND THE NEWER THERAPEUTICS

The future of medicine lies in the more careful and thorough study of physiologic phenomena. Every disease begins with a disorder of function, and as long as the difficulty is strictly functional, it is amenable to curative treatment in a way that is not possible when material lesions have been inflicted. Progress, therefore, lies in the ability to detect disorders at a still-earlier stage of their course and to apply the right remedy when there is yet a possibility of preventing material lesions.

This ability to detect disease early often has been so far above the capacity of the profession that there has been a disposition to sneer at studies of "simply functional maladies," as if these were unworthy of serious consideration. The term functional has been held as almost synonymous with hysterical. But that day, fortunately, is past. No longer is organic chemistry looked upon as a jungle into which no wise man will venture, such "wise men" rather choosing to follow the beaten paths of chemical knowledge, studying the definite metallic salts alone. As it is, we have made so many advances in physiology that they have rendered our former drug studies obsolete and reinvestigation of body processes on modern lines has become imperative.

One of the most fruitful fields for investigation is the study of the infant. Not one human being has an absolutely mathematically perfect eye, says the ophthalmologist. Not one of us was born exactly equilibrated and normal. Not one of us but has imperfections of frame, deficiencies of functional power, disequilibriums that mar the symmetry of our bodies and the harmonious workings of our organisms. These are most advantageously studied in early life, before they have been outgrown, or rather obscured, by complementary developments. Happy is he who has been

thus studied by a medical man, who has thus possessed himself of the key to his future maladies.

In these studies of infantile phenomena none is more interesting or important than that of the vasomotor apparatus. There is often a congenital disequilibrium that sometimes is startling in its manifestations. It is always of moment. One child will show perturbations of wide range from causes that may not affect any other of a large number of its fellows. There is meaning to a pulse of 100 in one that will not apply to a pulse of 120 in another. The pulse tension denotes more than fever, toxemia or temper, at times.

The best student here is the mother. Every prospective mother should have a training in medical science to fit her for her duties and opportunities. She is apt and willing, most anxious and quick to learn. Let her education be a part of the duty of the family physician, who should prescribe the books and elucidate their obscurities to her. She will see far more than he, and give warning in advance that will render many a perilous attack abortive.

Many advances in the management of children have been made by such studies. We do not now allow a child to drift into chorea before sending for the doctor to cure him, but when it commences to attract attention by grimacing, we have its eyes examined and correct the accommodation with glasses. We do not allow a boy to fall hopelessly behind at school for lack of attention to the obstructing adenoids and tonsils. Nor do we sit idly by and permit bad sexual habits to be aroused by the neglect of circumcision when that is indicated. Every intelligent mother now knows how much temper, nervousness and general naughtiness are due to digestive derangements, and many physicians are beginning to realize this. In time we may possibly learn to estimate correctly our children's intellectual capabilities and to gauge the extent and rapidity with which they can absorb and assimilate instruction.

The introduction of lecithin by Danilewski and its application by Cotton to certain forms of maldevelopment have opened up

a line for useful observation that may prove fruitful. How many other forms of imperfect growth may this remedy reach? Who can tell its limitations and possibilities, until it has been tried out in all promising directions? Add it to the well-established methods of developing the backward intellect and the unsymmetrical frame, and we may have in this curious remedy a most valuable aid.

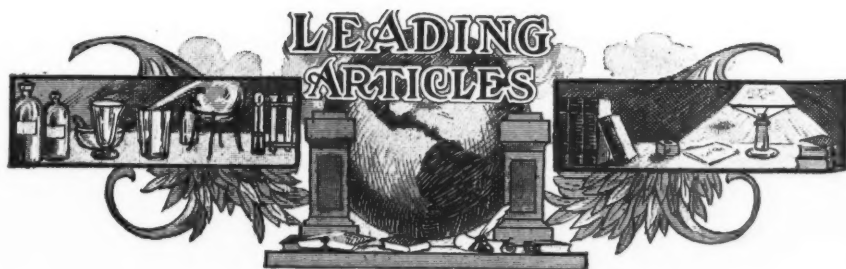
Whenever we begin to consider the directions in which the most promising paths for advance are opened, we come back to that ideal relation of the physician with the community which we have heretofore advocated. It is during health, and not after illness has occurred, that our best work may be done. Prevention is our duty, and the future doctor will be a director during life, not a mere doser during sickness.

THE DRINK PROBLEM

Among the many excellent papers read at the last meeting of The Illinois State Medical Society, none was more favorably received than that of Dr. Charles B. Johnson of Champaign, upon "The Health Conscience and the Drink Problem." In this paper the author reviewed in detail the terrible devastation wrought by alcohol, telling of its influence upon the individual and collective health, of how it produces a predisposition to disease, of its alliance with immorality, and how it is undermining the very foundations of society.

While some of the statistics given by Dr. Johnson may be questioned, yet his general conclusions are irrefutable. It is certainly a gratifying index of the change of opinion concerning this problem that his deductions were practically accepted unquestioned, and his presentation received with an enthusiasm accorded to no other article read at this meeting of the society.

Instead of these attacks and counter-attacks, this hot strife for personal ascendancy, the strong men of our organizations might far better concentrate their efforts upon the solution of the great medico-economic problems, such as that of alcohol and the social evil. Are they afraid to tackle something big?



The Limitation of Offspring

*The Most Important Immediate Step for the Betterment of the Human Race,
From an Economic and Eugenic Standpoint*

By WILLIAM J. ROBINSON, M. D., New York

President of the American Society of Medical Sociology; Editor of *The Critic and Guide*, *The Medical Review of Reviews*, *The American Journal of Urology*; Author of "Never Told Tales," etc.

EDITORIAL NOTE.—This is the address read before *The American Society of Medical Sociology*, March 4, 1911, by its president. As we have said editorially, it is "probably the most startling, the most revolutionary paper that has appeared in these pages." It is expected that there will be a storm of opposition, of counter-criticism. Send it in. We do not publish Dr. Robinson's paper because we agree with him, for we do not—at least in many particulars. We publish it because he has opened up a big question, a tremendous question, one which deserves thought and investigation, and which we can only solve, in the right way, by getting at it from every point of view, every angle. What do you think? Is Dr. Robinson right, or is he wrong? Has he found a real solution to a great social problem, or can the desired end be better accomplished in other ways? The columns of *CLINICAL MEDICINE* are open for reply; only be brief, for many will doubtless wish to be heard.

II

The Benefits That This Knowledge Would Confer Upon Mankind

We will now go over to the positive side and see what the universal knowledge of the prevention of conception will do for mankind. If you have given the matter but little thought, you will be astonished at the tremendous benefits which such knowledge is capable of conferring upon the human race. You will be amazed and grieved—as you should be—that this momentous question, this question of the most vital importance—has until now received practically no consideration at the hands of the medical profession, or in the pages of the medical press.

One of the most serious problems that confronts us today is the constantly grow-

ing number of bachelors, and the more and more advancing age at which marriages take place. For many reasons, this is to be considered a serious evil. Late marriage on the part of the man often means burned-out passions, exhausted vitality, impaired or destroyed sexual power, and very frequently it also means half-cured or latent venereal disease. The result for the woman is humiliation, suffering and often life-long misery and premature death, while for the progeny it means physical and mental disease, or at least a lowered vitality and a diminished resistance. In short, for the race as a whole it spells: degeneration.

But what is the chief cause of our late marriages? Investigate, and you will find that the chief cause is the fear of having children, of having too many children,

of having them too soon. You will find that it isn't the fear of supporting a wife—for two often can live as cheaply as one, and if the wife is a good one, even cheaper—but it is the fear of the children, whose possible number is indefinite. It is not the fear of supporting two, it is the fear of the possible ten. The universal dissemination of the knowledge of contraception would have a wonderful effect in this respect. Let us see:

1. Such knowledge would induce many men to get married much earlier than they otherwise would, and it would decidedly diminish the number of bachelors and of old maids; and this would have a decided effect on the diminution of prostitution and, consequently, on venereal disease.

2. Numberless women exhaust their vitality and become chronically invalided by too frequent child-bearing and lactation. Prevention would obviate this evil.

3. Numberless women are today chronic invalids on account of employing improper means of prevention. Freedom to discuss this question would put the proper means into the hands of married women and this evil would be obviated.

4. Numberless women have killed themselves, have been killed, have been driven into premature graves by abortions or attempts at abortion. This is a terrible evil. *And whenever I hear of a case of a woman dying from an abortion, I blame not the woman, I blame society or the State, and I feel like sending those responsible for our brutal laws concerning the prevention of conception to the whipping post.* Prevention would obviate this terrible evil, this terrible crime which society commits against the female sex.

5. Numberless men are today pitiable sexual neurasthenics from *coitus interruptus*, which they practise through ignorance of better methods of prevention. The knowledge of prevention of conception would do away with this evil.

6. Many men, knowing no means of prevention and fearing to impregnate their wives, are forced to go to prostitutes. In fact, I know and you know of wives who encourage their husbands in this practice—only to avoid the terrible ordeals

of repeated pregnancies, labors, lactations, and bringing up of children. What the results of such practices may be it is easy to foresee. A knowledge of the prevention of conception would do away with this evil.

7. This point may seem trivial to you. It does not seem trivial to me. How many women have you known who had talent for singing, for painting, for poetry and literature, and in whom the arrival of children in rapid succession crushed out every ambition, deadened every desire, shattered every illusion? Children are a great thing—in measure—but their arrival at inopportune times or at too frequent intervals has rapidly metamorphosed many a high-strung, high-spirited girl into a spiritless, apathetic drudge. You who consider women good for nothing else except for child-breeding, may consider this of little importance. To me this is one of the greatest tragedies of life.

8. There are thousands of women whom to impregnate is almost equivalent to murder. I refer to women with advanced heart or kidney disease, with a tendency to eclampsia, with narrow and deformed pelves. I say, to make such women pregnant often means pronouncing the death-sentence upon them. The knowledge of prevention would save many such women from premature graves. Isn't it worth while?

9. Thousands and thousands of children, being borne by their mothers unwillingly, in anguish and in anger, are born into the world with an unstable mental and physical equilibrium, and being besides improperly brought up, on account of the mother's inability to attend to too many, forever after remain a burden to themselves and to others. The knowledge of prevention would obviate this evil.

10. We now come to an extremely important point. There are millions of married couples of whom either the husband or the wife, or both, are afflicted with some disease of a hereditary character. As examples of such hereditary diseases may be mentioned syphilis, epilepsy, insanity, perhaps also cancer. And people with such diseases, or with tendencies to such disease, for a long time yet will

continue to marry. (It will be centuries before people will be so imbued with the welfare-of-the-race idea that they will be ready to sacrifice their individual happiness and give up the object of their love and remain single whenever the abstract good of the race may demand it.)

What shall we do with such couples? Shall we permit them to breed syphilitic, epileptic and insane children? Shall we still further increase the burden of humanity, and shall we permit the number of defectives and degenerates to increase without any restriction? Surely not. So, what else can we do with such couples except to teach them fully how to avoid having children?

It Is Not Malthusianism

When I discussed this subject recently with some friends, one of them said: "Why, you are simply preaching Malthusianism." Now, first, if I were, that would be nothing against it. There will be a time when Malthus' essay on population will be taken down from the dusty shelves where it has been relegated for a century and will again be studied with care and attention. And it would do you no harm to read it now and try to learn something at first hand, and learn something about Malthus, who has been lied about and misrepresented, as all reformers and intellectual pioneers are.

And, second, I am not preaching Malthusianism. Malthus cared chiefly for the future. While I also care for the future, I care more for the present, and if we take care of the present, the future will take care of itself. Then, the only remedy that Malthus proposed or considered permissible was self-restraint, abstinence. We know now that, from a practical point of view, that remedy is worthless, while the remedy we propose is an efficient one, in fact the only one that would be readily accepted by the vast mass of the people.

Bear in mind that the chief theme of my discourse are the poor, the relatively poor, and those who for certain mental or physical disabilities are unfit for parenthood. It is they who should be taught

the heavy responsibility of parenthood and the means of avoiding it. Those who are rich or well-to-do and are free from transmissible mental or physical taints may have just as many children as they wish. Not only as many as are considered proper by Professor Emeritus Eliot, namely, eight, but three times that many. So long as the mother has no objection to almost continuous pregnancies and lactations and so long as the parents are able and willing to care for and bring up a large progeny, nobody will say them nay. Later on, when the earth is really populated to its limit, the State may have something to say even to the rich, that is, if there will still be a rich and poor at that time; but that is not our concern. We are dealing with the now and here and not with the future or the hereafter.

The Morality of Having Few or No Children

I have answered the objections to the prevention-of-conception teachings and have shown the great benefits which the knowledge of prevention would confer upon mankind, the great evils it would obviate. We will now discuss the general ethics of small families, the ethics of having few children or none at all.

Of course, I take decided issue with one of our energetic, but somewhat superficial and somewhat blatant national leaders, who would stamp every childless couple as villains of the deepest dye, as men and women deserving the execration of all right-thinking people. I admit that there are people in whom the decision not to have children arises from selfish and perhaps ignoble motives. They don't want any children because they don't want any trouble, they don't want their social pleasures disturbed, they want fun and material comfort. We cannot respect such people very highly, but, as stated previously, the race is better off without their children; for, if they had children, they would not be properly brought up and the children themselves would probably grow up selfish, ignoble prigs. But in the vast majority of couples the determination to have one or two children only or even none at all arises from very high motives, and a low

birth-rate is, in general, not a sign of a low morality, but of a high morality, of a high intelligence, high sense of responsibility.

You will find that the stupidest, the most ignorant, the most wretched nations have the highest birth-rates, while the most advanced, the most civilized nations have the lowest birth-rate. As examples, it is sufficient to mention China and Russia on the one hand and France on the other. And in parentheses I will say that, if you have become imbued with the puritanical idea that France is degenerating, decaying, you should get that idea out of your head, for it is a false idea, and you certainly do not wish to harbor false ideas. In everything that makes life worth living—I have said this before—in general culture, in advanced, liberal ideas, in sculpture, in painting, in literature in all its ramifications, in science, France still stands at the head of nations. There is only one other country that stands fully abreast of France, and that country is—no, not the United States, not England—that country is Germany. And in Germany the birth-rate is also diminishing.

The Declining Birth-Rate

For instance, only in today's *Journal of the American Medical Association* (January 21, 1911, p. 208) we find an item entitled "Reduction of the Birth-rate in Prussia." From that highly significant item we learn that the ratio per 1000 child-bearing women, i. e., between the ages of 15 and 45, has declined (leaving out fractions) from 174 in the quinquennium from 1876 to 1880, to 161 for 1896 to 1900, and 154 in the period from 1901 to 1905. In the cities the ratio has declined from 160 to 129. In the rural districts, the ratio of fertility for the same period was 182, 183 and 178, respectively.

As you see, it is the falling birth-rate in the cities which occasions the marked diminution of the general fertility. This phenomenon is especially notable in Berlin and the cities of the Province of Brandenburg. The fertility ratio in Berlin sank from 149 in 1876 to 1880 to 88 in 1901 to 1905, a reduction of more than 40 percent.

In short, you can take it for granted that the higher the civilization, the lower the birth-rate; and, within limits, this will continue to be the case until our social-economic system has undergone a definite radical change.

And it is natural it should be so. For the responsibility of bringing a child into the world under our present social and economic conditions is a very great one. The primitive savage or the coarse ignorant man does not care. It does not bother him much what becomes of his offspring: if they get an education, if they have what to eat, if they learn a trade or a profession, well; if they don't, also well; if they achieve a competence or a decent social position, he is satisfied; if not, he can't help it. God willed it so.

But, on the other hand, the cultured, refined men and women look at the matter differently. The thought of bringing into the world a human being which may be physically handicapped, which may be mentally inferior, which may have a hard struggle through life, which may have to go through endless misery and suffering, fills them with anguish. For this is not a beautiful world. Let the softheads, the unthinking, the reactionaries repeat that this is a kind world, a good world, the best of all possible worlds. We who have thrown off all illusions, we who despise the untruthful fairy tales, we who demand to know the truth as it is, we who dare to face the facts as they are, know that this is not so.

We know that we have evolved from the jungle, and we know that this is a mean world, a cruel world, a hard world, a world full of tears, of heartaches, of degradation, of weariness, of never-ending drudgery; for many it is a world of misery without beginning and without end. It may be a beautiful world to some, but their number is so small as to be almost inexpressible in percentages.

The Dismal Life of the Hopeless Millions

He who can not see should not be blamed for his disability. A person should not be blamed for being affected with congenital or acquired blindness. But neither

should they who *can* see be blamed for their clear vision. And what do we, who have clear eyes—and feeling hearts—see when we look about us?

We see about us millions of working men and women who go through life, from cradle to grave, without a ray of joy, without anything that makes life worth living. In the higher classes we see a constant, hard, infuriated struggle to make a living, to make a career, and the spectre of poverty is almost as unremittingly before the eyes of the middle and the professional classes as it is before the eyes of the laborer. And all over we see ignorance, superstition, beliefs bordering on insanity, hardness, coarseness, rowdiness, brutality, crime and prostitution; prostitution of the body, and what is much worse, prostitution of the mind, the hiding or the selling of one's convictions for a mess of pottage.

And our prisons, asylums, and hospitals are not decreasing, but increasing in numbers and in inmates. And the standing armies and navies that crush the nations' backs are not signs of sanity, of goodness, of a high order of civilization.

And as we look beyond, into the eastern part of Europe, we see a huge empire, presided over by a brutal and imbecile tyrant, supported by a blood-thirsty pack of grand dukes and their satellites; and this czar and his hirelings hold in chains one hundred and thirty million human beings, whom they exile, imprison, crush and trample upon at their pleasure; the very best and noblest of Russia's sons and daughters—her scientists, her writers and her thinkers—are pining away or going insane in subterranean dungeons, are knouted or deliberately starved and frozen in the mines of Siberia or are dangling from a thousand and one gibbets. And the so-called civilized nations of the world, the United States, England, and France included—sit by and say nothing. When with your physical or mental eye you see those things, you cannot say that this is a good, a beautiful world—not if you are sane.

And still I am an optimist. An optimist as to the future. For when I compare the present with the past, there is not the

slightest question in my mind as to the *wonderful* progress we have made. And our progress in the future will go at a much more rapid ratio.

But while very hopeful for the future, I do not deceive myself, as I said, as to the present; and this brings us back to the point from which I fear I made a rather too wide digression. It brings me back to the point that, while the world is as full of misery as it is, we cannot blame people for refusing to bring additional sufferers into it.

In fact, I am almost ready to believe that it would be an excellent thing if all the women throughout the world went on a strike for ten or twenty years and refused to bring a single child into the world during that period. The idea really appeals to me. The labor market would not be glutted, people would not have to cut each other's throat for a little business or a position, and we would perhaps get a semblance of peace of mind or independence. And the alarmed monopolists and statesmen would perhaps then decide to do something real for the people.

The Attitude of Our Philanthropic Agencies on This Question

A few words about our philanthropic organizations and social agencies in their relation to this problem. Good men and excellent women are depicting to us the horrors of the slums. We are being shown how many people are huddled together in one small room. We are being told how many dozens of willow plumes, of button-holes, how many pairs of trousers and shirt-waists, of artificial flowers, etc., the poor working child has to produce in order to gain a beggarly few cents. We justly shudder at the injustice and horror of child labor. We often receive harrowing letters from charity-organization societies asking aid for a poor mother with six or seven little starving children. Here, for instance, I have a picture sent out by the New York Association for Improving the Condition of the Poor. It depicts a mother with a newborn babe in bed and a poor workman sitting by and holding his head despondently to his head. The legend

under it reads as follows: "Father a crippled street-cleaner out of work with six children. Youngest, three days old." And he is asking the question, "What am I to do?"

You have probably all read the heart-rending account in last Tuesday's papers (Feb. 28, 1911) of a starving family of nine: father, mother and seven children. An extract from the account in question is as follows:

. . . The man while working as a painter's helper fell from a scaffold. He injured a leg severely. But when it got well he could get no work and his savings were soon exhausted. Neighbors almost as poor as himself saved scraps of food from their own scantily supplied tables for the destitute family, and on this they existed.

During one snowfall the man worked for two days at shovelling—worked in cracked shoes and thin clothing. He lay for a week afterward on a pallet on the floor, stricken with pneumonia. When he got out again, there was another snowfall, and he sought work again. But he was so weak he could not raise a shovel and he was discharged.

He said last night, wringing his hands, that he had sometimes begged from door to door, and prayed and prayed for work. The eldest child is a boy of fourteen, but he has been a cripple since birth and he could not get work. The youngest is four months old.

Reporters found the children lying with rags on top of them in a room heated only by an oil stove. One of the children had found half a stale loaf of rye bread on the sidewalk earlier in the day and this, soaked in water, had been the only food for the family of nine. The reporters themselves made up a purse to give temporary subsistence, and the man and woman and elder children went down on their knees to ask blessings on the young men who had succored them.

Such harrowing stories could be presented by the thousand.

Present Methods Only Palliative

Vast amounts of time, energy, labor, and money are expended to alleviate the intolerable sufferings of the poor. And we now help them, not only with food, clothing and money, but we teach them how to take care of their health. Physicians and district nurses go about teaching the poor how to live hygienically, how to take care of their children so as to decrease the infant mortality, and hospitals and dispensaries are always open and ready to provide medical aid whenever needed.

Far be it from me to sneer or to speak in any way disparagingly of our numerous philanthropic enterprises. I sincerely respect every honest endeavor to alleviate

the lot of mankind, even if personally I may consider the attempt ineffectual. I do not sneer even at the Salvation Army, for I know that they reach certain dregs of humanity which no other agency can reach. Yes, all the organizations and agencies which have for their purpose the alleviation of suffering, the easing of pain, the stilling of the pangs of hunger, the clothing of the shivering body, have my respect and sympathy. I know that they do not go to the root of the evil, I know that they will not cure or permanently relieve our ills, I know that they are only palliatives, but as a physician I know that when a disease is established it is often too late to speak of removing the cause, and I know that there are many conditions where palliatives are not only useful and necessary, but the only remedies that we can use.

Promise of a Wonder-Working Reform

But, nevertheless, it is my sincerest and deepest conviction that we should accomplish incomparably more if only a small part of the energy and money we spend now on philanthropic efforts were expended in teaching the women, the married women of the poor, how to limit the number of their children; in other words, how to prevent conception.

It would work a wonderful reform in the lives of the poor, and our slums would be metamorphosed in ten years.

Instead of trying to patch up the results of an evil system, let us try to remove its principal cause. Instead of trying to enlist our sympathies for a poor woman with nine children, let us see that that poor woman does not have nine children. A poor woman should have no children, or not more than one or two. And I venture to say that very few in this audience will disagree with me if I state that instead of sending that poor, crippled street-cleaner, who is out of work and who has brought six children into the world who will most probably also be poor, starving devils, I say, instead of sending him ten dollars, it would have been much better to have impressed it upon him and upon his wife that they had no right to have

six children, and to have given them the means of avoiding having such a large progeny.

And one of the central thoughts of my discourse tonight, one of the thoughts that I would like you to carry away with you and to ponder at your leisure is this: Let the district physicians and district nurses who visit the poor be *not only* permitted, but *instructed* to teach the poor mothers how to avoid having more children than they can properly support and care for. And let us also institute a propaganda which will work a change in public opinion, so that it may not be considered a matter of pride, but a matter of shame to give birth to children for which the parents must invoke public aid.

We have no right to blame the poor *now*, as long as large families are encouraged and praised by some of our so-called "foremost citizens," and as long as the only remedy we offer them is self-restraint. It is we who are to blame now for the large families of the poor, and for this reason we are morally obliged to give them all the financial and medical aid that they demand. But when effectual means are put into their hands for limiting the number of their offspring, then they, and not we, will be to blame if they do not make use of them.

And if we did that, if we succeeded in reducing the childbirth-rate among the poor to the proper and desirable limits, we should not have to be brutal and inhuman to those seeking the hospitality of our shores. We should not have to send back from American opportunity, in deepest despair to the conditions largely produced by this very thing against which I am contending, a strong, clean, able-bodied man because he has only \$18 in his pocket instead of \$25, as we read of only this week. We should not send back intellectual men suffering from a mild conjunctivitis which the overzealous, but not overcompetent, doctor diagnosed as trachoma. In short, we should not be forced by our overcrowded condition to pass inhuman laws to drive back people who are every whit the equal of those who, coming in former years, have helped to

build up this country, helped to make it what it is materially and intellectually.

Is Our Propaganda Making Progress

Is the propaganda for smaller families making progress? There are many people who will not adopt a belief unless they know that it is shared by thousands; will not join a movement unless they know that it has or will have thousands of adherents. And if a belief is shared by thousands or millions, that is in itself proof to them that the belief must be correct.

It is needless to say that your speaker tonight does not belong to this class. On the contrary, the very fact that a belief is readily accepted by the masses—and intellectually the vast majority of those who live in brownstone houses belong to the masses or the rabble—would make him look upon such a belief with critical suspicion. And he does not wait for the approval of the multitude before announcing his opinions. If he, after a thorough, careful, painstaking and perhaps painful consideration, should consider a thing right, he would advocate it, even if he knew that he were the only person among the fifteen billion inhabitants of the globe to hold such views. He did not wait for his views on small families and the prevention of conception to become popular, before he began to advocate them to the medical profession and to the public.

But it is pleasing to note that these views are now gaining adherents among thinkers everywhere, and are beginning to be expressed by men holding high positions in highly respectable institutions. For instance, the daily papers of January 1, 1911, printed statements from an address made by Prof. Thomas Nixon Carver, of Harvard. Such statements from such a source would have been unthinkable ten years ago. Dr. Carver is the Wells Professor of Political Economy at Harvard and Secretary-Treasurer of the American Economic Society, and one paragraph in his remarks is very happily expressed.

He said: "Foxes think large families among the rabbits highly commendable. Employers who want large supplies of cheap labor, priests who want large num-

bers of parishioners, military leaders who want plenty of cheap food for gunpowder, and politicians who want plenty of voters, all agree in commending large families and rapid multiplication among the poorer classes."

This coming from a Harvard professor is certainly a happy sign of the times, and I would recommend to a certain strenuous Harvard graduate to commit this paragraph to memory.

Yes, our propaganda is bearing fruit. All earnest, truthful propaganda will bear fruit, and will make converts. At first the people are shocked, antagonistic, and call you names; gradually they become tolerant, then they adopt your ideas, and then they say, "Why, we have always thought like that."

And so this world goes. But if we have a message to deliver to the world, we must deliver it, and if in order to make an impression it is necessary that we harp on one string, we must not shirk the unpleasant task. I know that some people are impatient at mere talk: "Do something," they say, "act!" But before we can act, we must talk; just as before we talk, we must think.

Concluding Reflections

That there may be no misunderstanding, let me just add this: I do not offer my remedy as a panacea for all our ills. It will not revolutionize society, it will not abolish the wage system, it will not bring about the cooperative commonwealth, it will not change human character, but that it will do very much toward accomplishing all these things I have not the slightest doubt.

And I will, therefore, repeat the paragraph which has been distributed to all of you: "There is no single measure that would so positively, so immediately contribute toward the happiness and progress of the human race as teaching the people the proper means of the prevention of conception." This has been my deepest and sincerest conviction since I have learned to think rationally. It is the deep and sincere conviction of thousands of others, but they are too cowardly to express it in public.

In conclusion, I should like you to carry away this thought. It isn't that what I advocate is something entirely novel, something that is not practised at all. You know very well that prevention of conception is practised in millions of homes, only it is practised in a bungling manner, and it is not practised by those who are in most need of it. The rich and the upper-middle classes, those to whom several children would be the least burden, are quite familiar with the various means of prevention. If occasionally they do get caught, they know an accommodating gynecologist who takes care of them—for the price. I understand there are rich women who visit their gynecologists with monthly regularity. The poorer middle classes use preventives recommended by their friends; these preventives sometimes succeed, sometimes fail, and sometimes ruin the woman's health. While the very poor, the wage earners, those who can least afford to have an unlimited progeny, knowing of no means of prevention, go on breeding to their own and to the community's detriment. The result, as you can plainly see, is a general lowering of the race.

For if the cultured and the well-to-do do not breed, or have only few children, while the poor and the ignorant go on having a numerous progeny, a progeny for which they cannot well provide and which they cannot afford to educate properly, it stands to reason that the percentage of the uneducated, the unfit and the criminal must go on constantly increasing. And this is something that no sincere lover of humanity can look at with equanimity.

It is because I am deeply, painfully interested in the welfare of every individual family, as well as in the welfare of the entire human race, that I so persistently, unremittently, perhaps to some even obnoxiously, advocate the dissemination of the knowledge of the prevention of conception. And if I have succeeded in converting at least some of you to my way of thinking, the time and labor spent on the preparation of this discourse has been repaid a hundredfold.

Dosage in Old Age

An Important Contribution to Geriatric Therapy

By I. L. NASCHER, M. D., New York City

DIAGNOSIS and treatment, the two most important divisions of geriatrics (the branch of medicine dealing with senility and senile diseases), shares in the general neglect of the whole subject. Lacking an intimate knowledge of the senile organism, in which every organ and tissue is degenerating, and uninformed of the action of drugs upon such altered organs and tissues, we treat our senile patients the same as we would younger individuals, perhaps diminishing doses without rule or system. There is no rule for dosage in old age. The ancient dogma, "children and the aged cannot stand large doses," when applied to the aged is a generalization in which the exceptions exceed the application.

Consider Both Primary and Secondary Effects

In giving drugs to the aged, we must consider as equally important the primary action, the secondary effects, the rapidity and duration of action, the assimilability, and the elimination.

The assimilability and elimination depend upon the condition of the digestive and eliminative organs, and as these are almost always degenerating in old age, the rapidity and length of action and often the effect of the drug are unfavorably influenced thereby.

Secondary effects of drugs upon the degenerating tissues are often so pronounced and pernicious as to vitiate the beneficial primary effects, while the primary effects are sometimes altered. Iron, for example, has little or no effect upon the blood in senile anemia, the depressant effects of the aniline derivatives are more dangerous than the conditions for which they are required, and the extremely slow absorption of tannin-bearing drugs make them virtually inert.

Danger of Vasoconstrictors in Senile Cases

A death from apoplexy following a hypodermic injection of digitalin in threatened

heart exhaustion first showed me the danger of giving vasoconstrictor heart tonics in old age. In senility there is always some atheroma of the cerebral vessels, and under the combined blood-pressure raising influences of vasoconstriction and increased heart tonicity, there is always the danger of rupture of some degenerating blood-vessel. When digitalis is indicated, small doses are useless unless combined with other heart tonics, and large doses are dangerous unless combined with vasodilators. The crude drug and the tincture are so slow in their action as to be worthless except as a precautionary measure. In an emergency the active principle must be given hypodermically, combined with a rapidly acting vasodilator like nitroglycerin. Given in this way, the organism can tolerate large doses.

The slow and prolonged action of digitalis makes it available for continued use, but we have here the danger of a cumulative effect.

In threatened heart exhaustion strychnine is better than digitalin and can be given in a single dose of 1-20 grain. Sparteine and strophanthin can be given in large doses, the latter combined with a vasodilator. In senile debility, phosphorus can be given in doses up to 1-20 grain.

For Senile Constipation

In senile constipation due to waste of the muscular fibers of the intestines, whereby intestinal peristalsis is lessened, peristaltic stimulants like aloin, cascara, the bile salts, etc., are required, and as the waste of muscular fibers proceeds, we must increase our dose of the cathartic. The increased dosage required in such cases is not due to habituation, as is generally supposed, but to more advanced senile changes, and if we change the drug, the new drug must be given in correspondingly large doses.

In like manner, gastric stimulants, hepatic stimulants, and all drugs used to in-

crease the activity of organs and tissues which have become weakened through senile changes, must be given in increased doses.

Since stimulants are more often required than sedatives in senility, the rule of diminished doses in old age is irrational. In determining the dose, we must remember that increased activity in a degenerating organ hastens the degeneration, and while larger doses than in maturity may be required to produce effective results, for prolonged use we must begin with the minimum dose that will give an appreciable response. This does not apply to drugs from which the full effect is expected from a single dose, as when a cathartic is given for temporary constipation. In such cases as much harm is done by an insufficient dose as by an excessive dose, for an eliminant which does not eliminate becomes a local irritant.

Use of Functional Depressants, Opium Particularly

Depressants and drugs which inhibit or diminish functional activity must be given in smaller doses in old age. This does not apply to drugs which produce a short stage of excitement before the desired sedative action, as when giving narcotics.

We are warned against giving large doses of opium and its preparations to the aged. The danger is not from the narcotic effect, but from the secondary effect upon the respiratory centers, and this danger may be averted by adding atropine. There is a further danger, when giving opium, from its slow elimination and its inhibitory effect upon intestinal peristalsis. The so-called greater susceptibility of the aged to opiates is purely imaginary, the only basis for this oft-repeated statement being the greater danger from the secondary effects upon the respiratory centers, and the danger from habituation and from cumulative action.

Danger of Cardiac Depressants

All sedatives which depress the heart are dangerous in old age and should be given in smaller doses, combined with heart stimulants acting with equal rapidity. For this reason, when giving acetanilid, it should be combined with ammonium car-

bonate and not with caffeine. Chloral is a heart depressant and the ordinary heart stimulants are either too slow in action or antagonize the hypnotic effect. While caffeine produces insomnia and is therefore a physiologic antagonist to chloral, I have used the two in combination (1-4 grain of the citrated caffeine to 10 grains of chloral), and obtained the desired effect of the chloral without weakening the pulse. The bromides are rarely required in senility (never in senile tremor), and when given, small doses are generally effective.

The nitrites must be given in small doses, except when given in combination with large doses of vasoconstrictor heart tonics.

I know of no condition in senility in which the prolonged use of depressants is indicated.

Warning About Alternatives

The uncertain action of the alteratives upon the degenerating organs and tissues of senility makes it impossible to formulate any rules for their administration. The iodides, which apparently cure arteriosclerosis in maturity, have no effect upon this condition in senility and even small doses will produce gastric irritation. The iodides, when given at all, must be given in small doses, as they produce albuminuria or increase the amount of albumen where albuminuria is present.

Arsenic follows the rule for stimulants. I have given the iodide of arsenic in 1-15-grain doses as a general tonic and found an improvement in the pulse. This drug, however, is very unstable and it disturbs digestion. This is the only iodine compound that I have had any success with; three cases in which it was used after I had discontinued Fowler's Solution showing a softer pulse. Fowler's solution may be given in doses of from 5 to 10 minims in twelve-hour intervals, until the gastric disturbance necessitates its discontinuance.

Of the mercury salts, calomel is the only one finding much application in senile cases. When used as a purgative, it can be given in doses of 5 grains. When, however, there is deficiency of bile due to the senile changes in the liver, it is better to supply the deficiency artificially by the

use of ox-gall or bile salts than by stimulating the liver, thereby hastening its degeneration. Phosphorus can be given in doses up to 1-20 grain.

Points On Combining Drugs

In combining drugs, we must not forget that drugs given to counteract detrimental secondary effects may themselves have detrimental incidental effects. The popular aloin, strychnine and belladonna pill is useless in senile constipation, for this reason. This condition is due to lessened intestinal peristalsis caused by waste of the muscular fibers of the intestines. The belladonna given to counteract the griping effect of the aloin diminishes peristalsis, thereby antagonizing the action of the aloin, which is intended to increase peristaltic activity.

Drugs given hypodermically follow the general rule of increased doses for stimulants and diminished doses for depressants, and, owing to the rapid action of drugs given this way, it is of the utmost importance that they be combined with others capable of counteracting undesirable secondary effects.

Drugs administered by inunction must be given in large doses, on account of the difficult absorption by the skin in old age. Absorption is hastened when a slight local hyperemia is produced on the site to which the drug is to be applied, by laying a cloth moistened with hot water over it. I will mention incidentally that pure, unsalted butter free from water is an excellent base for the administration of drugs by inunction; it is also a good vehicle for ointments.

Immunity in Infectious Diseases

By H. J. Achard, M. D., Chicago, Illinois

THE fact that one attack of an infectious disease produces an immunity to further infections from the same virus in the person affected has been known for centuries. One of the most typical diseases, from this point of view, is smallpox, in which one attack almost invariably protects against later attacks, that is, renders the victim immune to the disease. The very isolated cases on record in which smallpox has occurred more than once in the same person are so few as practically to establish the rule. A similar immunity occurs in some of the other acute infectious diseases, notably in scarlet-fever and measles.

On the other hand, there are certain diseases an attack of which appears to render the organism predisposed to subsequent ones. Thus it is by no means infrequent for an individual to suffer from several attacks of typhoid fever, while diphtheria and whooping cough also may occur repeatedly in the same person. We even know now that there are many individuals in whom one siege of measles by no means establishes an immunity, and the writer has personal knowledge of several patients who have had this

disease at three or four different times. The same is true of scarlet-fever, although in a much slighter degree.

Does Tuberculous Infection Engender Immunity?

The question has been raised, ever since the infectious nature of tuberculosis was established, whether in this malady the infected organism does not set in motion a similar apparatus of immunization; that is, whether tuberculosis is not followed by immunity, to some degree at least. To a certain extent this question may be answered affirmatively, but the immunity produced in this disease depends upon so many factors, and is at best so slight and so easily overcome, to be replaced, for some biochemical reasons, by the reverse of immunity (that is, hypersensitiveness), that we cannot derive any clinical advantages from the immunity produced spontaneously in tuberculosis, except by the closest possible study of the problems involved.

Since the mode of defense of the organism to any infection is alike in principle, and since the problems of tuberculosis are most

familiar to the writer, he will attempt to elucidate and describe briefly the mechanism of immunity, using tuberculosis, or rather, a tuberculous infection, as a paradigm.

In this connection the writer must insist upon an understanding of the correct terms to be employed, in contrast to the prevailing slipshod custom in terminology.

A Definition of Terms

It will suffice for our purpose to point out that an *infection* is not the same as the corresponding *infectious disease*. Infection means only the introduction into the animal organism of an infectious virus, which, for reasons presently to be considered, may not lead to any one structural or chemical changes, that is, may not cause the infectious disease. This latter exists only then when the functions of the organism are in any way interfered with by the results of the infection, by the pathogenic action of the infectious organism, by the resulting alteration in the tissue of the infected organ or organs. We shall, in the following, distinguish sharply between the two terms.

Mode of Entrance of the Tubercle Bacillus

The tubercle bacillus may be introduced into the body either through the respiratory passages, through the digestive tract, or through the skin. The last mode, as well as the so-called traumatic infection, that is, the direct infection of a wound with tuberculous material, is so rare as to permit us to leave both out of consideration in our present inquiry. The introduction of the tuberculous virus by way of the digestive tract is claimed to be the principal mode of infection in tuberculosis by von Behring, Calmette, and by many French, English and American physicians, less by German investigators. This, however, does not appear to be well established, at least not sufficiently so to invalidate the other theory, namely, that the principal form of tuberculous infection occurs through the respiratory passages. The writer believes that the latter theory is the correct one, at least for the majority of cases, and will therefore consider it as established for his present discussion.

Shortly before the discovery of the tubercle bacillus (1882), Julius Cohnheim, in dis-

cussing the probable nature of the tuberculous virus, said: "According to our present conceptions, everybody in whose organism the tuberculous virus is established becomes tuberculous."

Not many years after the discovery of the tubercle bacillus, Prof. Straus of Paris, as the first, showed virulent tubercle bacilli in the nasal secretions of many students, nurses and recovered patients in the consumption wards of the Paris hospitals, the students and nurses in question not showing any evidences whatever of tuberculosis. They were immune.

This finding of Straus, which was soon verified by many other investigators, did much to resuscitate the older notion, almost abandoned under the impetus of bacteriological investigation, of the importance of a predisposition, or of a proper soil for the occurrence of an infectious disease, especially of tuberculosis. In short, it was admitted that, for tuberculosis to develop, the mere presence of the tubercle bacillus in the body does not suffice, but that it can only act as the seed for the disease if the soil is favorable to its growth, if the organism is predisposed.

Soon afterward Buchner published his first papers upon what he called alexins, or protective substances; and with these investigations of Buchner the theory of immunity in infectious diseases was rapidly developed, until today we have a very fair conception of its mechanism.

Let us try to follow the course of a tuberculous infection, and of the reaction of the organism to this infection, using as nearly as possible plain English, without any technical terms. It must, of course, be remembered that there are a great many factors at work which determine the predominance either of the tubercle bacillus or of the organic resistance, also the relative virulence of the infection, and the presence or absence as well as the degree of an existing predisposition to the tuberculous disease.

The Process of Invasion

When tubercle bacilli are inhaled, the first point at which they are likely to be arrested is at Waldeyer's ring. Either during the inspiratory movement or, and still more,

during the act of deglutition the germs may be forced against the tonsils and into the tonsillar crypts, where they find in the secretions an excellent soil for their propagation. They may also be forced against one of the other glands making up the ring of Waldeyer or else they may be drawn into the bronchi and their divisions and subdivisions.

Wherever tubercle bacilli are arrested, they act as foreign bodies, and suffer the same fate as do particles of dust carried into the respiratory tract with the inspired air. From the surrounding circulation, migratory cells appear, which engulf these invading foreign bodies and deposit them in the nearest (regional) lymph-glands. In these lymph-glands the tubercle bacilli may, for the present, remain without multiplying and without producing any tissue alteration. On the other hand, they may multiply, and then, by their direct stimulation of the tissues, lead to an outpouring of leukocytes, which, together with other cells, attempt to wall in the *noxa* and to render it harmless. If this were the end of the song, the problem would be simple. The tubercle bacilli imprisoned within a wall of cells would be comparatively harmless.

Unfortunately, the tubercle bacilli do not submit to their imprisonment without opposition. They secrete certain toxins which have the effect of causing the center of the tubercle to undergo necrotic changes (caseation) followed by softening. When the tubercle in one of the regional lymph-glands has become caseous, the leukocytes carry the tubercle bacilli to the next lymph-gland. And this process is repeated until the great system of lymph-glands at the hilus of the lungs is reached, and at last these have become subjected to tuberculous changes. (Cornet.)

The Defensive Processes in the Blood

According to the latest investigations, the blood-cells or the blood-serum are capable of engendering certain chemical substances which influence the tubercle bacilli in such a manner that they shall become amenable to the destructive (digestive) action of the phagocytes. Other substances are elaborated in the blood (whether by the cells or in the serum is not definitely determined),

the exact chemical nature of which is not at present known, except that they are probably albuminoid bodies, but which may exert both an antibacterial and antitoxic action. Reference has already been had to some toxins which the tubercle bacilli produce, namely, to those which are responsible for the caseation of the tubercle. Other toxins, as has first been shown by French investigators, act by stimulating the formation of fibrous tissue, and if these toxins are secreted in preponderance, we may get fibrous changes in the tubercle, or healing; we may also get fibrous phthisis.

The substances developed in the blood which antagonize the growth of the bacteria may act either by injuring their fatty or waxy capsules so as to render them susceptible to the action of the phagocytes (opsonins); or they may have the effect of gluing together the bacteria, disabling them from multiplying (agglutinins); or they may act in other ways by which the propagation of the bacilli is arrested.

Other protective substances, as already intimated, antagonize the toxins produced by the infectious virus, and these act as antitoxins. This last is a very important protective provision of the organism, because the toxic effect of the tubercle bacilli is by no means the least formidable one for the production of tuberculous disease, it having been well ascertained in recent years that tuberculosis is characterized fully as much by a tuberculous intoxication as by the tuberculous infection. (I leave, at present, the question of mixed infection and of mixed intoxication purposely out of consideration.)

From the foregoing it will readily be seen that, generally speaking, the occurrence of tuberculous disease following upon tuberculous infection depends upon the degree of resistance put forth by the organism. If this resistance is sufficient to prevent the further multiplication of the tubercle bacilli and to neutralize the tuberculous toxins, the infection will remain latent or at least inactive, and tuberculosis will not result, or, if it has already commenced, it will be held in abeyance. If, however, the organism is incapable of developing a sufficient amount of effective protective substances, then the tubercle bacilli will prevail, and tuberculosis

will result; owing to a temporary inability of the attacked organism to defend itself, the tuberculous process may progress to a certain point, when the power of reaction of the organism may again be restored. In this case, the further growth of the inimical bacilli is arrested, the toxemia is neutralized—in other words, an immunity is established—and the tuberculous process becomes inactive, latent or, in the most favorable case, extinct.

Inhibition, or Arrest, of Bacterial Growth

This inhibition of the bacterial growth and its consequences will occur in a healthy organism in which the reactive power is sufficiently intense, that is, in which the protective substances are elaborated in a sufficient amount and quality, and in which then the phagocytes are numerous enough and powerful enough not only to engulf but also to destroy the offensive bacteria. This inhibitive power may also be induced artificially by the administration of drugs having the known effect of causing a hyperleukocytosis, both in number and quality, as for instance nuclein.

However, the resistance of the organism may be overcome or weakened at any time by factors constantly operative in our "civilized" lives, such as worry, mental strain, exposure, acute diseases and the like. If this has occurred, and if the inhibition of the bacterial activity is arrested thereby, the bacteria may again become active, provided they are still viable or virulent, the tuberculous process will be re-activated and will gain a further advance, until—whether through the stimulation of the organic reaction-power or through remedial agents—the resistance of the body is again sufficiently strengthened to arrest the disease.

This advancement and arrestment, with periods of latency, may be said to occur periodically in the early course of tuberculosis. The tuberculous process, activated for some reason or other, progresses until the organism is stimulated and irritated so as to produce the protective substances and to develop a sufficient amount of tuberculous immunity to arrest it. The oftener this hide-and-seek play has occurred, the more intense will, as a rule, the tuberculous

process become, and the less efficiently will the self-immunization of the organism develop, until during the combat a considerable amount of tissue has been destroyed in the affected organ, so that the general health has become involved, and the function of the organ can no longer be carried on efficiently.

Anaphylaxis, or Hypersensibility

There is another factor which is of importance for the occurrence of progressive tuberculosis, or phthisis. I refer to the hypersensibility (anaphylaxis) produced by a first infection. The theory of anaphylaxis was announced a few years ago by Richet, and was studied, in this country, especially by Rosenau and Anderson of the Hygienic Laboratory. In Germany, von Behring had investigated the problem for more than twenty years, and early in this century, before Richet, von Pirquet and Schick published several contributions to the subject from Vienna.

This theory means, briefly, that if a "foreign" (heterogenous) albumin is introduced in an animal organism, a second introduction of the same substance, after a certain period of incubation, even in minute doses, will cause symptoms of intoxication.

Years ago von Behring expressed the opinion that consumption in adolescents or adults was due to a tuberculous infection during infancy or childhood and which remained latent for years, becoming active later in life. Eventually this opinion was modified to the effect that the first infection was not sufficient in itself to produce a progressive tuberculous disease, but that it sensitized the organism so that a later re-infection would find it hypersensitive, that is, less resistant and, in fact, predisposed to the pathogenic action of the virus.

Congenital Susceptibility and Immunity

This idea, somewhat modified, was made use of by Courmont, in an attempt to explain the susceptibility of the offspring of consumptive mothers to tuberculous infection.

Courmont claimed, and his opinion was supported by the authority of Arloing, that from the blood of the consumptive mother tuberculous toxins pass through the placenta

into the fetal circulation, and that then the fetus is in the same condition as a guinea-pig that has been infected once, and which, on a reinfection, rapidly succumbs to acute tuberculosis. The offspring of such a mother develops tuberculosis whenever exposed to the slightest degree of a tuberculous infection, because this individual has become sensitized (made hypersensitive, or anaphylactic) by the intrauterine tuberculous intoxication.

This theory of Courmont is very plausible, to say the least, and may eventually enable us to work out the problem of heredity in tuberculosis. (See my paper on this subject in *The Illinois Medical Journal*, for September, 1910.)

On the other hand, I have found, while in the Winyah Sanitarium in Asheville, North Carolina, that if tuberculous toxins are transmitted from the mother to the fetus, specific antituberculous substances may also pass into the fetal circulation in the same manner, and that thus a consumptive mother may transmit to her offspring a degree of tuberculous immunity. The problem is being studied at present, and will, I hope, lead to positive results in the near future.

However this may be, there can be no doubt but that in the course of our daily lives we are subjected to frequent and repeated infections by tubercle bacilli, and they may, according to the lack of susceptibility of our organism remain harmless; but they may, on the other hand, in proportion to the want of resistance, the hypersensitiveness or what-not, develop and eventually lead to progressive tuberculous disease. In this connection, I refer to an interesting paper by von Pirquet on this subject printed in *The Archives of Internal Medicine* for Feb-

ruary. It is not here the place to enter into a detailed discussion of the problems involved. I hope that what I have said may be sufficient to afford some sort of an explanation of what may be thought as occurring.

Increasing the Body's Resistance

It has already been mentioned that the protective power of the organism may be increased and stimulated by remedial agents, and nuclein has been mentioned as an agent which is known to produce a quantitative and qualitative hyperleukocytosis. Other means of producing a tuberculous immunity in the infected organism are presented in the so-called specific remedies for the treatment of this disease, that is, in the various tuberculins and the products of the bacillary bodies. The writer has briefly described a number of these preparations in *The Chicago Medical Recorder* for April, 1911, and has also discussed the question in *THE AMERICAN JOURNAL OF CLINICAL MEDICINE* for June, 1910. The problem will be further discussed in other contributions on the subject, in this journal.

It stands to reason that the organism will be assisted in its fight against any invading infectious *noxa* if its every function is raised to the highest possible degree of efficiency, if, for instance, the hemoglobin-content of the blood is increased (it will usually be found low) by means of proper medication, if the digestive and assimilative powers of the body are stimulated so as to result in an efficient and satisfactory state of nutrition. By careful but sufficient elimination, the body may be rid of its intoxication, while by other means well known to every practitioner its general functions may be stimulated and its nervous equilibrium restored.



The Rational Management of Carbuncle

By BENJAMIN H. BREAKSTONE, B. S., M. D., Chicago, Illinois

Professor of Clinical Surgery in Bennett Medical College, Medical Department of Loyola University; Professor of Clinical Surgery, Reliance Medical College; Attending Surgeon, Jefferson Park Hospital; Member of the Consulting Staff, Cook County Hospital; Consulting Surgeon to Mary Thompson Hospital

EDITORIAL NOTE.—This is a continuation of Dr. Breakstone's series on "Everyday Surgery." These articles appeal particularly to the general practitioner because they tell him of cases such as he may be called upon to treat himself, and describe technical methods that are within the scope of his own training. The series will be continued.

THERE is perhaps no infection on the neck of the male adult so common as carbuncle, and, more, it is not infrequent that one sees these victims parade the streets for weeks, and even months, with the bandage around their necks.

Nature and Cause of Carbuncle

A carbuncle is a multiple abscess; that is to say, it consists of many, sometimes hundreds, separate little abscesses beginning in a hair-follicle, and each of these little abscesses remains distinct and an individual abscess until gangrene occurs. Then the carbuncle looks like one or more large abscesses, but in reality it is only thus superficially, for deeper in the tissues each particular abscess still retains its individuality, a pocket of pus in itself.

The reason why carbuncle is so frequent in men and very rare in women is because the men wear stiff collars, which irritate the nape of the neck and thus afford an opportunity for the entrance of pathogenic microbes into the hair-follicles. Especially is this true when the neck has been freshly shaved. In reality, therefore, a carbuncle is a multiple folliculitis, and it is necessary to be acquainted with these facts before we can intelligently discuss its treatment.

The Accepted Treatment Is Unsatisfactory

The favorite treatment at the present time is the crucial incision; still, it can readily be seen, that is not a curative measure, for it only opens up abscesses within the path of the incisions, leaving the hundreds of other little abscesses untouched, as shown in Figure 1. And even if we supplement this crucial incision with curetting, hundreds of follicular abscesses nevertheless will remain intact.

More recently multiple incision has been practised for the cure of carbuncle, but this method is open to the same objection as the other.

As to practical results, we do not get them from either of the methods mentioned. For, in the first place, the patients are not relieved of their pains; then,

they continue to suffer for weeks and months, having to undergo the operation repeatedly, until, at last, with the aid of a kind Providence, the infection eventually is gotten rid of, but only after the patient is completely exhausted, has become a habitué of narcotics, is extremely anemic, and must now be referred to medical men and neurologists for further constitutional treatment.

It will not be my purpose here to discuss the abortive treatment, although the meth-

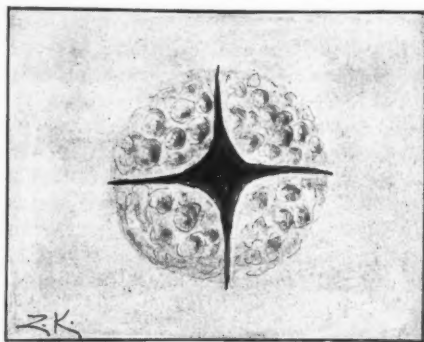


Fig. 1. Showing the crucial incision

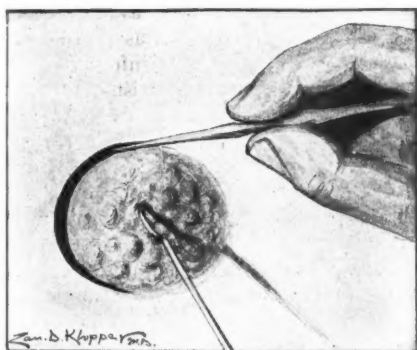


Fig. 2. Illustrating the radical by complete incision operation for carbuncle

od I am about to describe will cure carbuncle at any stage quickly and permanently.

The Rational Operation

It seems rational to me that, to cure multiple abscesses of the nature of carbuncle, all of these abscesses must be removed in this wise:

First scrub well and thoroughly asepticize the field of operation. Then, after picking up the carbuncle with a sharp hook, with a long, narrow-bladed, sharp scalpel or bistoury, make a circular sweep clear around, in an inward manner and toward the center of the field, and thus remove the entire infected mass in the form of a cone—as shown in Figure 2. If any of the infected tissue is found to remain, then this should be curetted away.

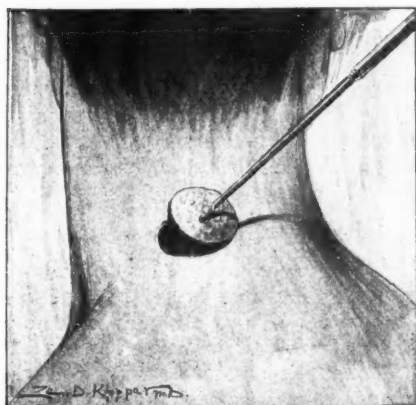


Fig. 3. The cone of festured tissue lifted out

However, if the operation is perfectly performed, all of the infected tissue composing the carbuncle will be removed with one quick circular sweep of the knife, so that there will be remaining a conical cavity that may go down to the deeper muscles of the neck, the apex being in the deeper tissues and the base at the skin opening, this opening varying in size with that of the carbuncle, but taking in all of the reddened area around the carbuncle, so that in some cases the layer of skin cut out is several inches in diameter. Not a particle of infected tissue should remain in this cavity. This wound, when clean, is packed with iodoform gauze, a dry



Fig. 4. Appearance of wound after removal of the carbuncle

dressing is applied, and the patient allowed to go, free from pain, and happy.

The Results Are Surprising

It is surprising to note how quickly all pain disappears, and how on that same night the patient, suddenly and entirely relieved, has his first good sleep in a long while. Another remarkable fact is the rapidity with which some of these very large cavities fill up, as well as the small scar left, even if the carbuncle removed measured as much as two inches in diameter.

The operation here described is performed so quickly that it causes very little pain, even without any anesthetic. Of course, the knife must be very sharp to be able to do this rapidly. Another reason why there is not much pain is that

the patient has already suffered so much that the cutting only diverts his mind from the atrocious pain he has been suffering during the existence of the carbuncle. I have performed this operation, for more than twelve years, even on dispensary patients, who as a rule are nervous, and never have had to use a general anesthetic, although occasionally I have employed a spray of ethyl chloride with patients who were extremely nervous.

Avoid Local Hypodermic Anesthetics

Neither cocaine nor any other such local anesthetic that is injected hypodermically should ever be used, and for two reasons: First, the pain caused by the hypodermic needle is equivalent to the pain undergone in this operation. Secondly, the needle spreads the infection. If cocaine is used at all—which to my mind is folly—then

it should be injected far away from the site of the carbuncle, so as to avoid all chances of causing a fresh infection.

The after-treatment consists in dressing the wound every other day at first. Incidentally it will be found that each day the amount of iodoform gauze necessary to fill up the cavity is less than before, showing how very quickly the large wound fills up.

The ordinary-sized carbuncle is completely cured within two weeks, which is certainly a gain over any of the methods heretofore described. Besides, it must be a great satisfaction to the patient to be relieved of his pain almost at once without taking any narcotics, and to be able to go about his business as if nothing was troubling him. Of course, in connection with the treatment, these patients may need laxatives, tonics, or other treatment.

The Problem of Quackery: A Symposium

EDITORIAL NOTE.—Much interest has been shown in the articles on "Scientific Medicine Versus Quackery" which appeared in this journal, running through several issues, earlier in the year. The topic is plainly enough one of intense interest to most physicians, who are beginning to see that the policy of silence, of taking without answer and without reprisal the brutal assaults constantly being made upon our profession, is and has been a grievous error. The problem of quackery is one that our medical societies are beginning to discuss. Recently the Therapeutic Society of the District of Columbia devoted an entire session to this subject, and the following papers were presented by members and invited guests. We do not expect every reader of CLINICAL MEDICINE to agree with all that is said by every contributor to this symposium; indeed, we do not ourselves agree with them in everything, but we sincerely hope that these essays may set you to thinking, and finally be the means of stirring you to fight your own battles "for the profession and humanity."

SUPERSTITION AND QUACKERY

By E. L. MORGAN, M. D., Washington, D. C.

"Lord, what fools these mortals be!"

IN presenting this theme for your kind consideration, I must be compared to a chamois leaping from crag to crag, leaving you to bridge over, with many details, what seem to be a number of disconnected facts that have no bearing on this opening paper of our symposium this evening.

In the beginning was superstition, and the faith therein was of mankind. There-

fore we should consider the cause and the effect. In our own generation it appears as heredity and, again, in some instances, as a reversion to the belief in the curative influence of the church.

The Element of Superstition in Medicine

Superstition, if not the grandparent of religion, is of very near kinship. Medicine is the child of religion, a branch lopped off the tree of theology. Cures were attempted and made by the shamans, the priesthood, sorcerers, astrologists, and others, not only in remote ages, but in our own era. It was

but little over a century ago that medical students were still required to pass an examination in astrology. Superstition is a heredity, a mental condition, which has, through the blood, been handed down to us and, like our shadows, is perpetually our companion in this vale of tears. We are all credulous and superstitious, we are permeated with this mental condition, knowingly or unknowingly. It is as natural to man to fear or to venerate something as it is for a duck that has been hatched out by a hen to take to the water.

Therefore, confidence or faith is a common attribute of superstition as well as of religion and medicine. People still believe in magic. In ancient Greece, pythonism played its part in the history of the healing art. The necromancer, or thaumaturgist, was supposed to possess great power for good or for evil. We, today, believe in chiromancy, and consult gypsies. The primitive doctor, besides charms, uses chironomy in the treatment of disease, that is, many gesticulations—pantomimes—to drive off evil spirits; like ourselves, he employs many methods of treatment.

There seem to be two classes of "Indian medicine-men"; one, the quacks, who deal in occult medicine and are in the profession for what they can get out of it financially; the other, who set bones, cure snake bites, dress wounds, and use native medicines, herbs, etc., these being the true physicians.

We, ourselves, believe in ghosts, and have believed in witches not so long ago, and the divining rod is still in vogue to locate hidden streams of water. Our colored population believes in "seeing evil," or second sight.

The Korean attributes nightmare to an unfriendly spirit who is spitting on his stomach during sleep. The Fijian considers his shadow the "dark spirit who descends into hell." His other shadow, i. e., reflection, seen by him in the water, is supposed to stay near the place he dies—so to speak, the devil and a guardian angel. A savage seeing his image reflected in a looking-glass said, "I can see into the spirit world." Indians believe their shadows are their souls—suggestive of the x-ray. One sick Indian, on recovering, was warned

not to expose himself to the sun, "that his shadow was not well settled down on him."

All over the world, seers, magicians, astrologers, prophets, priests, as well as physicians were all superstitious; they all believed in the virtue of charms, visions, sacred springs and the holy waters, sacred relics, ceremonial processions, sacrifices, rituals, noises and sounds, and much more of this nature; they believed that demons caused sickness and that witches exerted evil influences, and so on without end. Medicine was permeated with superstition and questionable practices. Powdered skulls, powdered gems, human blood were considered valuable remedies; the starry ointment of Paracelsus was made with human fat, and was used to dress wounds—in fact, it was not necessary to do even that, for, if the injured person lived at a great distance it was thought sufficient to smear it on the dagger that inflicted the wound. Cramp-rings and such like charms were believed in by reputable physicians. And in the face of all this, there were quacks, so called, even in those days.

Judge Not Hastily

This being the case, should we not, then, throw the broad, protecting mantle of charity over present-day superstitious systems and persons practising the same? Should we not look into the mirror, to see ourselves? We laugh at our ancestors, but others, in their turn, some day will laugh at us. Is our system of today permeated with superstition or not? Are we giving the public fairy tales of medicine or not? Think of the untold thousands of pages printed in the past, amounting to many volumes, not worth today the paper it is printed on, save as a matter of history. Many of these authors, who made reputations, good livings, and often acquired money in their day, in our age would be in jail or end their careers on the scaffold.

Metallotherapy is an old practice. Arisotle, Paul of Aegina, Paracelsus, and others employed this method of treatment in the most diverse affections. Then mesmerism appeared on the scene of conflict. This magnetic fluid (magnetotherapy) interested many physicians. Quacks reappear and

disappear from time to time like winter snows, while of the dupes there is no end.

Finally, in the arena of the scientific medical conflict of 1776, Dr. Elisha Perkins of Connecticut introduced his marvelous "metallic tractors," used principally in the treatment of local inflammations and other of diseases. It is said there was such a demand for them that it was at one time hard to procure the instrument. Physicians in Copenhagen endorsed his method, while in London "a Perkinsian Institute was established for the treatment of the poor." A few years after Dr. Perkins' death the "metallic tractors" disappeared from the medical stage of action. Haygarth of Bath obtained similar results with his wooden cylinders. In Charcot's magnets the principal factor was suggestion. Hypnotism has its many friends. Faith-cure, Eddyism, etc., are now all the rage.

Intellectualism and Credulity Not Correlated

It seems strange that so many cultured as well as ignorant people are carried away by every new "pathy," "ism" or religion. Learning, or ignorance, does not make men crazy. Neither are they superstitious because they are highly cultured or less learned. Faith and superstition are separate and independent factors in our lives.

For instance, Voltaire, in his "Philosophical Dictionary," article, "Common Sense," says: "The Arab, who, besides being a good calculator, was a learned chemist and an exact astronomer, nevertheless believed that Mahomet put half of the moon in his sleeve." That is to say, in the age in which the Arab lived, was cultivated and learned, he should have known better. Our religious views can in future centuries be likewise criticized. Are not the morals of one age the vices of another? Do we, or do we not, interpret the Scriptures according to the philosophy of the age in which we live?

Spiritualists often give therapeutic advice, and it is a rank fake. So with all other so-called occult sciences. The clairvoyants claim to tell us much. The world is credulous. We have much to learn—the probabilities or possibilities of science and medicine offer us inviting fields.

Here is an extract from "An Outline of Theosophy," which quotes from "Clairvoyance, p. 88": "All that passes before a mirror, for instance, is reflected on its surface, and to our dim eyes it seems that the images make no impression upon that surface but that each passes away and leaves no trace. Yet that may not be so. It is not difficult to imagine that an impression may be left, somewhat as the impression of every sound is left upon the sensitive cylinder of a phonograph, and it may be possible to recover the impression from the mirror just as it is recoverable from the phonograph."

From much error in the past, we have obtained many valuable facts, and the same will be the case in the present as well as in the future. It is astonishing how the highly cultivated men and women are continually pursuing fads of medicine and quackery. If knowledge is power, in many cases it works injury to the possessor thereof.

I believe there is some good in osteopathy. As a rule osteopaths make no diagnosis. They get cures sometimes as a result of "suggestion" or directly of massage. As a profession, osteopathy is a humbug, has no advantages over ordinary massage. If there is anything the average doctor is ignorant of, it is massage treatment, and there is where the osteopath gets the better of our profession.

Dr. Still's Claims Dissected

Dr. E. D. Barber, in his work on "Osteopathy," writes as follows concerning Still's claim that he discovered the fundamental principles of a new science:

"We must differ with him as to the true cause of the results reached by osteopathy. Dr. Still believes nearly all the diseases are caused by dislocated bones, nearly always finding them and thereby winning for himself the name of 'bone-doctor'; in practice we never find a great number of dislocations, and by the same manipulations we effect the same cures as Dr. Still. If a bone is really dislocated and has been in that condition for years, and the dislocation cannot be reduced, but if the muscles are contracted and causing a stiff joint,

manipulation quickly relieves the patient; or by depressing the ribs the patient is led to believe the bone was dislocated.

"While we do not doubt for an instant that our classmates are sincere in their belief that in catarrh, sore eyes, deafness, and other diseases of the head, the atlas is dislocated and that they cure these diseases by setting the atlas, we believe that twisting, pulling and stretching the neck in a vain attempt to move the atlas stretches the muscles, thereby freeing the circulation and permitting nature to assert herself. Be they right or wrong, our readers can cure any acute disease of the head, almost instantly, by gently pulling on the head and rotating it in all directions; and so any chronic complaint, except cancer, total deafness or total blindness, by continuation of the same method.

"We all agree on one great point: that man is a machine, and that nerve-centers have been discovered upon which a pressure of the hand will cause the heart to slow or quicken its action; from which we can regulate the action of the stomach, bowels, liver, pancreas, kidneys, and the diaphragm."

Continuing, Dr. Barber quotes Still as follows: "Thousands of people are snatched from the grave by an application of these never-failing principles, which is proof positive that at last the keynote has been struck; that at last a man is found, and a school established, that can explain intelligently why certain manipulations produce certain results."

Restoring Circulation the Essence of Osteopathy

Dr. Barber then continues: "While we cannot go directly to the nerves at fault, we can, by manipulations, which will be fully described under their proper head, stretch the contracted muscles that are obstructing the current, whereupon, if the case has not become chronic, the bowels will immediately resume their functions and the excited kidney will cease to act so rapidly." Then he adds that it takes nature from two to six weeks to assert itself in all chronic cases. The massage treatment, which we believe is based upon

strength and ignorance, effects remarkable cures by moving flesh and muscles in all possible directions, over the entire body. They unwittingly and unavoidably, if they are very thorough, free the right spot, establishing the circuit, thus permitting nature to assert itself.

"Still says that contracting muscles may interfere with the circulation, may interfere with nutrition, and so cause inflammation and disease. As a result of obstruction of circulation, there occur dropsy, inflammatory rheumatism, eczema, erysipelas caused by stagnant blood, and heart disease."

Having referred to the bones that "support the nerves" that control the blood supply, Still dwells on the muscles. "We state," he says, "most emphatically that the true cause of all diseases may be traced to some muscle which has contracted and for some unaccountable reason has failed to relax, thus interfering with all the forces of life. It is through working on these principles which we have briefly sketched that we have achieved results bordering on the miraculous." Thus he claims to cure asthma, consumption, in fact nearly all the ills that flesh is heir to.

Osteopaths make great pretensions as to the results they claim they get by their so-called system of medicine. They are but human, and finally will have differences of opinion, starting new "pathies." They will have numerous imitators parading under various names, with modifications and additions to their system of practice. All there is in osteopathy is massage and bold ridiculous claims for the treatment of disease.

We are not above criticism, as a profession; we have our therapeutic fetishes, make marvelous claims as to results, only a few years later, often, to repudiate the claims, therapeutic and operative, we so enthusiastically proclaimed to the world.

I have now, in this brief paper, touched upon osteopathy and allied practices, as assigned to me for opening this medical symposium. In closing, let me emphasize the fact that confidence, faith, suggestion, massage, and shall I not say, in some cases superstition, play the most important role

in this new practice, as it once did in our own profession, when our ancestors were yet shamans, and were often obsessed by some evil demon requiring the assistance both of clergy and doctor to effect a cure.

[All fair-minded and informed men must agree in the main with Dr. Morgan in his strictures on the unreasonable claims of the apostles of osteopathy; but while he, himself, introduces the theme by admitting there is some good in this system of treatment, he does seem to go a little too far in some respects—although much of that is taken out of the mouths of other critics. The admitted results “sometimes” secured by osteopaths are attributed solely to suggestion and massage, but for the rest, the thing is declared pure humbuggery.

We are not defenders of “bone-setting” as a separate and exclusive method of cure—of course not; yet, osteopathy as taught today in the better-class schools and practised by its more intelligent disciples is not that crude procedure and doctrine that it originally was.

Medicine, we believe, owes much to these men, even as it is debtor to those charlatans who gave to the world hydrotherapy, electrotherapy, psychotherapy, and other special features of the healing art. Their claims have been wildly overdrawn, but that is something witnessed daily within our own ranks respecting drugs and methods. At any rate, they have forced upon our attention a valuable aid in our efforts to cure; as certified to, for instance, by A. Abrams, who, in “Spondylotherapy,” says that “others, less scientific but more astute,” have discovered that “manipulation of the spine” may cure conditions that “have failed of cure in the hands of experienced physicians.”

Moreover, it must not be forgotten that “massage” and “osteopathic manipulation” are by no means interchangeable terms, inasmuch as the latter includes the former, but greatly exceeds it in range. The intelligent osteopath may be, at times, of greatest aid to the general practitioner, the two working hand in hand.—Ed.]

THE NONETHICAL REGULAR PRACTITIONER

By GUY W. LATIMER, M. D., Hyattsville, Md.

WHEN one considers the subject of ethics in its broadest sense, it narrows down to the consideration of honesty. There are many physicians who consider themselves honest, and are so considered by the public, yet who are not ethical.

It is not easy to define the term ethics in a single phrase. The term is derived from a Greek word signifying “one’s own doing,” and that probably most accurately defines our present-day conception of ethics, for one’s own conscience can be the only guide in ethics, especially as applied to physicians. Ethics, originally, meant character. The treatise of Aristotle dealt with its good and bad qualities. Ethics of today deals with the good of the individual, not of the community, this belonging to politics.

Cooperation Between Physicians the Need of the Hour

Strange, is it not, that physicians, the most charitable of all men, most ethical toward others, are so often found wanting in the crucial test among themselves, and in this respect have become the laughing-stock of the world. For this, there are two great causes: human weakness, and the physician’s peculiar isolation in contradistinction to organization. The consideration of the first carries us back to childhood, when our mothers tried to teach us truthfulness, charity and honesty, for without these no man will be ethical. When we hear an attack upon a fellow physician, it is our duty reasonably to defend him by word and manner. I say manner, for at times silence is more damning than words. Do unto others as you would have them do unto you under similar circumstances. Remember, the accused is not present to defend himself and the evidence is generally distorted and incorrect. It is much easier to see a crook in a line after it is drawn than it is to draw it straight. Every disparagement upon a physician of good standing—and it is only of these that I am now speaking, for the

quack has already been referred to—is a disparagement upon the whole medical profession. Each person that loses confidence in one physician proportionately loses confidence in the whole profession, and each individual thereof suffers as a result.

Here it is that we need organization to bind us closer and to teach us that our interests are mutual. The lack of this organization makes us peculiarly isolated, each man feeling that his interests are entirely separate from those of his neighbors. As long as this condition exists, it is but human that he stoop either by word or by silence in disparagement of his colleagues.

The old custom of idol-worship of physicians is largely responsible for our present condition. It made him feel that there were no others as good as he and he must in turn make himself appear to them in such a light. It is obvious that such cannot be done and break square with our colleague. I do not mean to detract from the regulars—far from it; I have the most profound respect for them; but I believe that closer association of physicians and frequent consultations and cooperation of its various specialists has very materially improved our ethics.

There may be some men unethical for pecuniary reasons solely. It is no more excusable than is dishonesty because of poverty. I feel truly sorry for the man who is deserving and who can not make a living. Yet I do not excuse him for theft either of another's money or his patients; and an unethical practice is nothing more nor less than theft, and I cannot conceive of an honest man being unethical. It is often from this poorer class that the criminal abortionist first starts. He is offered a large fee and cannot resist the temptation, and then his downward course is rapid. Just as a bank-clerk who begins to take a little, but soon is a great defaulter. Still, a large number of this class deliberately choose this work, just as the professional swindler chooses his calling for its large profits. Statistics show that, as a rule, the physician abortionist had poor educational advantages, hence is generally poorly equipped to do scientific work and fails

in an ethical competition. But, please, let me add here that the great majority of abortions are performed by midwives.

The Family Physician Must Not Antagonize the Specialist

An antagonistic attitude between the family physician and specialist is conducive to poor ethics. The sooner they both realize that one is dependent upon the other, the better for both. The family physician should call assistance as soon as there is a grave condition impending, unless circumstances make it inadvisable. He should not wait until the patient is moribund, for then it is only too often said, and sometimes in truth, that had assistance been obtained earlier, the patient could have been saved.

The specialist should not forget the rights of the family physician, however, but which they only too frequently do. It is neither becoming nor necessary for the consultant to appear as if he were all-important. He should be to the attending physician as reinforcements are to the general in battle.

When the patient has passed from the medical to the surgical field, the surgeon should remember that the clinician is of valuable service to him, and it is only fair that the first physician should be shown consideration in the treatment prescribed. When the clinician who has watched a case for months and has a surgeon in consultation upon some point, then to have the case practically taken out of his care, and some radical departure made in treatment without due consideration being given the family physician, is not good ethics. It is probable, in the case of the average mortal, after such an experience, that he is reluctant to have another consultation. The question of fee-splitting should receive more consideration than my time permits. I only mention it to condemn it.

Emergency and Ad Interim Services

When we respond to an emergency call to see another's patient, we should exercise the greatest care that nothing be said to arouse doubt in the minds of the family, as to the proper management of the case.

The question of relieving each other at times when for one reason or another such relief is necessary is a difficult problem. Every physician who can possibly afford it should take ample vacation, during which time the physician caring for his work should be doubly bound to make no breach of that trust, for under these circumstances so very much mischief can be done by an indiscrete word; at these times he should strictly hold his tongue.

The Professional Hog

Those physicians having very large practices are often like the old fable of the dog in the manger. They attempt to manage more cases than can be fully cared for, and thereby prevent some other equally capable physicians, though less employed, because of youth, from obtaining the work. This is not fair to the profession, to the patient, or to the overworked physician. It reminds me of the man who has lots of land but can't obtain labor to cultivate it, and makes less from it than his neighbor who has not more ground than he can properly cultivate. Sooner or later these overworked men fall behind in their professional ability and, like uncultivated ground, become derelicts to progress, for the public still hold their opinion as infallible. Many so-called chronic incurable patients are permitted to continue in their suffering because some too busy man does not take the time to work on them, while some younger man would gladly do the work, to the honor of the profession and gratitude of the patient.

To sum up, let me say, every physician should at all times be a perfect gentleman, but to be a gentleman, he must be honest; and if he is honest, he will be ethical.

NONPROFESSIONAL SUGGESTIVE THERAPEUTICS

By D. OLIN LEECH, M. D., Washington, D. D.

NONPROFESSIONAL suggestive therapeutics is manifested in that diabolical fetish, Christian science. It is without doubt the most unchristian, unscientific dogma or cult that has been perpetrated upon mankind in modern times. The teachings of Chris-

tian science, especially as relating to health and disease (as shown by Mrs. Eddy's own words as published in her standard works), are, to say the least, fantastical, and her basic principle is false.

The standard authority of Christian science is "Science and Health, with Key to the Scriptures," which Mrs. Eddy was nearly eight years in compiling. The first edition of that book appeared in 1875, and it has run through two hundred and ninety editions of one thousand copies each. The history of Christian science dates back to 1866.

What Does Christian Science Teach?

For a definition of Christian science, it is sufficient to quote one that is generally used: "The foundational truths of Christian science are the reality and allness of God, the unreality and nothingness of matter, the spirituality of man and the universe, the omnipotence of God, the impotence of evil. The demonstrative actuality of Christian science essentially distinguishes it from all other religions of the age."

Now listen to what Mrs. Eddy has to say as to physical healing, quoting from "Science and Health with Key to the Scriptures": "The physical healing of Christian science results now, as in Jesus' time, from the operation of divine principle, before which sin and disease lose their reality in human consciousness and so disappear as naturally and as necessarily as darkness gives place to light, and sin to reformation. Now, as then, His mighty works are not supernatural—they are the sign of Immanuel, or God-with-us, a divine influence ever present in human consciousness, and reflecting itself. Coming now again, as was promised aforetime, to preach deliverance to the captive (of science) and recovery of sight to the blind, to set at liberty them that are bound."

In "Faith and Works of Christian Science" (page 285) Mrs. Eddy says: "His three-days' work in the sepulcher set the seal of eternity on time. He proved life to be deathless, and love to be the master of hate. He met and settled all the claims of medicine, surgery, and hygiene with the power of mind, and mastered them

on this basis. He took no drugs to allay inflammation; He did not depend upon food or pure air to resuscitate His wasted energies." Further, she says: "Sin, sickness, and death are only as beliefs—they are error, an illusion to which there is neither reality nor identity."

A Challenge to Mrs. Eddy

Those who practise the cult are called healers. Mr. Wallace W. Wright, a brother of Carroll D. Wright (late U. S. Commissioner of Labor), in 1872 took a course under Mrs. Eddy, and went to Knoxville, Tenn., where he practised healing. He came to the conclusion that the whole thing was merely "mesmerism," and publicly challenged Mrs. Eddy to demonstrate her science by any of the following methods, which cover what she had professed herself able to practise: (1) To restore the dead to life again. (2) To walk upon the water, without the aid of artificial means. (3) To live twenty-four hours without air, or twenty-four days without nourishment of any kind, without its having any effect upon her. (4) To restore sight when the optic nerve has been destroyed. (5) To set and heal a broken bone without the aid of artificial means.

Mrs. Eddy did not respond; however, some of her students took up the case, but never proved any of her claims.

Is Called a Bluffer and a Grafter

Mrs. Eddy declared to Mr. Edward Everett Hale that she could, by an effort of the will, stop the flow of blood if an artery or vein were cut. This she never did. She was one of the greatest bluffers the world has ever seen. A very prominent minister describes an interview where she offered to let him cut her jugular vein, assuring him of her ability to heal the wound in his presence. Of course he was not fool enough to do it. She also assured her students that she could hold her finger in the flame of a candle without feeling pain.

She was a great "grafter." Thus, she set out to make money by charging large sums for her teaching—by copyrighting her book, constantly changing it, and re-

quiring the use of the latest edition. By prohibiting the use of any book except such as she wrote, she promoted an expensive edition. She courted and encouraged great gifts to herself. She insisted that her healers should be well paid—which was to her credit. She said that "the patient who pays what he is able to pay is more apt to recover than he who withholds a slight equivalent for health." This is a good hint for us doctors to make use of.

To quote Mrs. Eddy further, in order to show the utter ridiculousness of her theory: "Disease is an impression originating in the unconscious mortal mind, and becoming at length a belief that the body, or matter, suffers. You may scoff at my declaration, that mortal mind produces lung complaint, and all other diseases, but I respect it. Sickness is a growth of illusion, springing from a seed of thought—either your own thought, or another's." To her students she emphasizes: "Remember that all is mind, and there is no matter. You are only seeing and feeling a belief, whether it be cancer, deformity, consumption or fracture that you have to deal with."

Some Other Humorous Citations

Mrs. Eddy's conception of physiology is laughable. Listen to this farrago, and then we will leave the subject silently to be meditated over:

"Physiology has a reputation in our land. Institutions honor it. To medicine it bows the knee. Aside from this, it remains to be proven whether physiology has improved mankind. We shall yet open our eyes to this fact, that calling on matter to remove what the human mind alone has occasioned is a mistake attended with grave consequences. Physiology is anti-Christian. It teaches us to have other rulers than Jehovah. The good it is supposed to do is evil, for it would rob man of a God-given heritage."

"Putting on the full armor of physiology, and obeying to the letter the so-called laws of health (so the statistics show), have neither diminished sickness nor lengthened life. Diseases have multiplied and become more obstinate. Their chronic forms have become more frequent, the acute more

fatal. There are more sudden deaths since our man-made theories have taken the place of primitive Truth."

"When there were fewer doctors and less thought was given to sanitary subjects, there were better constitutions and less disease. In olden times, who ever heard of dyspepsia, cerebrospinal meningitis, hay-fever, and rose-cold?"

"Because the muscles of the blacksmith's arm are strongly developed, it does not follow that exercise did it, or that an arm less used must be fragile. If matter were the cause of action, and muscles, without the cooperation of mortal mind, could lift the hammer and smite the nail, it might be thought true that hammering enlarges the muscles. But the trip-hammer is not increased in size by exercise. Why not, since muscles are as material as wood and iron? Because mortal mind is not producing that result in the hammer. Not because of muscular exercise, but through the blacksmith's belief, comes the strength of his arm."

"Is civilization but a higher state of idolatry, that man, in the nineteenth century, should bow down to a flesh-brush, to flannels, and baths, to diet, exercise, air?"

"I account it sinful and idolatrous to have more faith in drugs, diet, air, exercise, cleanliness, than in God, Truth, and Love, to keep the body harmonious, and make man undying."

"If half the attention given to hygiene were given to the study of Christian science and its elevation of thought, this alone would usher in the millennium."

"It is anything but scientific to diet, dose, and exercise, in order to aid the human body until the Divine Mind is ready to take the case."

HOW TO REMEDY THE EVIL

By EDWARD H. EGBERT, M. D., Washington, D. C.

IT is a difficult matter to outline remedies for so vast an evil, in so short a time, so we will plunge at once into the subject, considering first the general means, then the more definite measures to overcome the evils considered by the preceding essayists.

We might consider these organized systems of medical practice, together with the various unorganized forms of medical fraud, as several independent foci of a malignant growth within the public body, each with its several metastatic manifestations: osteopathy, with its new growths; chiropractic and mechanotherapy; Christian (?) science (?), with its new- (?) thought, divine (?) healing, absent-treatment healers (?); and all the rest. Each of these is doing all that is within its power—and *they are powerful*—to destroy the confidence of the public in all that is sane regarding matters of public and private health.

What have we to offer as a remedy? There is but one, and fortunately this is a specific. Education is the only solution of the problem. To be effective, it must be broad, comprehensive, and must include all classes of people. So, first, then, let us consider

Education of the Medical Profession Itself

Medical students should be given a more general course of instruction; less time for unimportant and unprofitable laboratory experience, and more time for laboratory diagnostic methods, and for physical diagnosis and therapeutics in all of their phases. Let me make myself clear.

I am not decrying or deprecating laboratory instruction of a practical sort, in fact, I urge that more time should be given to this important phase of instruction; but three periods of two hours each in the laboratory and two periods of one hour each in the lecture and recitation room for one solid school-year is too much time to spend on such subjects as, for instance, comparative anatomy and embryology. The same holds true for much of the time spent in the physiologic and chemical laboratories; too much puttering experimentation along impractical lines. Thus take the number of hours spent in the development of so-called laboratory technic, and in "witnessing operations" at long range, and compare them with the number of hours given to practical didactic and clinical instruction in such valuable therapeutic aids as massage, hydrotherapy, thermotherapy, phototherapy, electrotherapy, sug-

gestive therapeutics, dietetics, and the many other valuable methods of treatment so successfully exploited by the quacks.

As one of the measures to adopt in our assault against the stronghold of quackery, let us give these means the consideration they richly deserve both in the curricula of our colleges and in the meetings of our medical societies, so depriving the public of the incentive for straying off to the charlatans.

At present many physicians who fail to appreciate the value of physiotherapy will twit a brother practitioner for availing himself of the use of some of these agents, while in the meantime people are scrambling over each other to place themselves in the hands of the fakirs, who, using some one of these methods of treatment as a cure-all, will frequently benefit their patients, meanwhile rendering them inimical to the regular medical profession as a whole. How often it is the case that a little massage combined with a liberal dose of suggestion on the part of an ignorant quack—yet which is nothing but suggestion, pure and simple, though dressed in a pseudoreligious disguise—will cure a functional disease that has not received benefit from several well-known and most excellent physicians.

Educations for the Educators

Clergy, college professors, school-teachers, magazine and newspaper editors, and others of learning are, as a class, no exception to the rule of ignorance of the lay public concerning health and disease. Interesting lectures and pamphlets dealing with the sociologic phase of disease and its prevention, and pointing out the disaster following in the wake of ignorance, superstition and quackery, and the need of an educational campaign concerning preventive and curative medicine will accomplish a vast amount of good.

Education of the Legislators

With bills before the legislative bodies of many of our states, recommending the recognition of osteopaths, chiropractors, naturopaths, and what not, it is expedient that tactful measures be promptly adopted to make plain the pernicious effect on the

commonwealth, following the legal recognition of such false systems of practice. Great pressure is now being brought to bear upon our state and national legislative bodies for the promotion of legislative enactment of measures extremely injurious to the profession and the commonwealth.

Representatives and senators alike are being informed as to the status of scientific medicine by such organizations as "The League for Medical Freedom," the latter a diabolical coalition of irregulars, osteopaths, chiropractors, and the like, mind-over-matter-so-nothing-matters ignoramuses, quacks and fakirs of all kinds and of all degrees, proprietary-medicine sharks and a few thoroughly good, well-meaning souls, who, having harkened to the hypocritical song of these harpies, have been lead into the belief that regular physicians are, in the main a lot of dope-slinging hop-heads, banded together in a great "medical trust," bent on provoking "class legislation," in order to further selfish ends, and having a system of ethics which they believe is in reality a sort of code of "honor among thieves."

Let us, then, point out the need of laws for rather than opposed to public and professional welfare.

Education and the General Public

The most effective means to attain this end would be through the daily press. But the press is blind to right and wrong when it comes to sacrificing advertising space occupied by advertising quacks and patent-medicine crooks. The yellow species are especially to be condemned. When the religious press will stoop to such "accessory-to-the-crime" means of "making expenses," we naturally can not expect much of the lay publications. In fact, we must anticipate their allegiance to the "interests" in the coming reform, by reaching the public through other channels. I know of only one daily paper that ever entered into reform measures of this sort. *The Cleveland Press*, a few years ago, exposed the method of the advertising quack and drove every one of these vultures out of the community, although it cost it, as well as the

other local papers, something in the way of advertising space.

The majority of newspaper men, I am sure, are not so black as they have been painted; ignorance is the keynote. So, until they are brought into a realization of the untold suffering they are actively promoting, on the one hand, by giving publicity to the wares of a class of men unfit to black the boots of a sneakthief, and, on the other hand, passively permitting such a blot on civilization by failing to make exposures, then, and not until then, can we expect aid from them.

The Public Is Thirsting for Knowledge

Another means of getting the public ear (and personally I believe that at present it is the most effective means we have at our disposal) would be the publication of a monthly magazine devoted to the interests of promoting public health. There can be no doubt as to the demand for such a publication, else the people would not at this writing be supporting at no mean profit to the owners, more than eighty so-called health periodicals. The people ask for bread, and receive poison, for much of the advice offered in these journals is absolutely damnable and fiendish. Some of it, too, might be considered humorous, it is so silly and foolish, so manifestly false, were it not for the fact that such stuff is being eagerly read, and accepted as good, by thousands, yes, hundreds of thousands of the great army of unthinking people.

These periodicals are either deliberately or, through ignorance, incidentally destroying the confidence of hundreds of thousands of our citizens, of better than ordinary education, in all that is sane concerning health and the prevention and treatment of disease. Some of these denounce the use of all forms of therapy, except some distorted form of psychotherapy, which is extolled as a cure-all and a prevent-all, while, paradoxically, giving space—at so much per inch—to the alluring invitations of the vilest class of vultures that have ever disgraced human society, the mail-order quacks and the absent-treatment fakers. Gentlemen, is it not time to be up and at them?

We have often heard it argued that people who had no better sense than to believe such stuff and to patronize the "fool-killers" richly deserve to be stung. Should we, then, allow our children to play with firearms, reasoning that, if they are such fools as to play with them, they ought to get shot or to shoot their playmates or bystanders, and that, if injury be done, they would learn wisdom thereby, and if someone were killed we should be better off without them. No, we know that they are not fools, but simply ignorant of the danger of firearms. Not only do we teach them of the danger but we also put the gun out of their reach! That is the situation exactly. These people are not fools. They are simply ignorant concerning medicine, and because they are not fools, they realize their ignorance and seek light. Naturally, they read or listen to what is conveniently procurable from the newsstand, the publishing house, and the lecture platform.

We owe the people a square deal in health education; we owe our children a good education; we owe to ourselves and to our patients the advantage obtained by occasional postgraduate courses; we owe them and ourselves the benefit of an occasional outing, of more books, of better equipment; yet few of us can afford these things, excepting the former.

In the meantime, because of our dignified (?) silence, enough good money is being wasted for bad medicine, bad treatment and bad advice to afford us all these things, and more. Think of it, \$3,000,000 is being spent in this country annually, as the advertising budget for "consumption cures" alone!

Suggestions for a Popular Health Journal

Let us, then, publish a journal to be sold at the news-stands for, say, five cents a copy, or at the rate of fifty cents a year; the editor-in-chief to be some sound-minded man like Dr. William J. Robinson, the present president of the American Society of Medical Sociology and the editor of *The Critic and Guide*.

Through such a medium, sound advice concerning prophylactic medicine could be

given. The booze "tonics" and proprietary medicines of this type could be discussed. Cancer and consumption "cures," medical "institutes," mail-order quacks, "scientific-food specialists," and quacks and fakirs of every description could be exposed. The limitations of massage, manipulation, of diet, of psychotherapy, under whatever name it might be called, could be defined. The disastrous results following legal recognition of the various one-idea methods of treatment, as systems of medicine, could be brought to public attention. Interesting accounts of the triumphs of science in the field of medicine, such as "How Medical Men Are Building the Big Ditch," together with "little journeys to the homes of masters of our profession" would give a touch of human interest and turn contempt on the part of some to respect for modern medicine. Tell the mothers how to care for their babies and how to cook for and nurse the sick.

Oh, the thousands of useful facts that could be told and the lessons that could be taught authoritatively. The value of such a journal both to public and profession is beyond estimation.

Public Meetings

We believe that much can be done from the lecture platform by interesting the more educated class of people. These lectures should be given by men solely engaged in such work and by others who could not be accused of having a personal ax to grind, such as government medical officers, health officers, and others not engaged in clinical practice among the public. Not only would such meetings tend to alter the view of the audience regarding medicine (for it seems that this class is ever prone to run after false gods of healing), but they would enlist many in an effort to help in the general educational campaign.

Personal Instruction

More than one might think possible can be accomplished by personal instruction on the part of each of us as individuals, teaching those with whom we come in contact. The way is frequently opened for us to discuss these subjects. Often we are asked concerning some cult. It does

not suffice to dismiss the subject with a high and mighty assertion that So and So is a quack, or that such and such is a fake. Such an attitude is more likely to create the suspicion that we are jealous, professionally, of someone or something, and that we have reasons to be so. It is our duty to acquaint ourselves with the subject, and then, as opportunity is afforded, to explain the exact nature of these cults, and, while admitting the modicum of good in each, based on some well-known method of treatment (not an all-sufficient system of medicine), to point out the fact that every case of someone cured, benefited or surviving such treatment is noised about, because the method is unusual, while a patient not benefited is likely to say little about it, lest people remind him that it is a case of "a fool and his money easily parted."

Real physicians are guiding to successful recovery desperately sick people, every day, and it is taken as a matter of course. An osteopath or one of that class may carry a case of typhoid fever along to recovery with proper diet and nursing, and the event is heralded abroad. Should complications arise, a physician is called to shoulder the responsibility.

Disabuse the minds of the people of the false idea—and most of them have the notion, fostered by the irregulars—that the regular physician is an "allopath," that he is narrowed in his judgment by creed and doctrine. Teach them that rather the reverse is true—that regular medicine is the only all-embracing method of practice, hampered by no preconceived ideas, and that, as a scientific school, it can hold no dogma concerning either the cause or the treatment of disease. Convince them that such beliefs as that "all is mind," that "all diseases are due to displacements of bony or cartilaginous structures," or any other doctrine that accepts one cause or one cure for all disorders are investigation-destroying, progress-hampering beliefs and are a positive curse to mankind.

To Sum Up

We believe that the treatment of disease by the followers of the unscientific cults,

the medically half-educated, and the unethical doctors of medicine is a curse to the nation. That patent medicines are causing as much, if not more, harm than does the liquor traffic, and that these men and women are exerting a pernicious influence, not only over those seeking their aid, but upon the public at large. That they stand for retrogression in preventive and curative medicine, and that their only useful purpose has been that they have demonstrated how much can be accomplished, in some cases, by the use of psychotherapy and other physiotherapeutic means, and how very little they really can do for cases beyond the limitations of such therapeutic measures.

We believe the rational method of overcoming this evil lies in an active educational campaign.

We believe that it is of the utmost importance to hasten the correction of existing legislative measures, because, as they now stand regarding medical practice, they are a hindrance of the fit and a protection of the unfit.

We believe that it is the privilege, the peculiar right, and the duty of the regular profession to enlist, as a body and as individuals, upon a general educational campaign, and to do it now.

QUACKERY AND MEDICAL EDUCATION*

By TOM A. WILLIAMS, M. B., C. M., Washington, D. C.

THE mysteriousness of medical science and art is fast passing away; and it is high time. That this happy event is being accomplished against the opposition of a large part of the medical profession merely shows the tenacity of conventionality. The aloofness of these men only perpetuates the lay ignorance, which is the feeding ground of the medical charlatan without or within the profession.

Some men say that instruction in hygiene should be received only from the family doctor. As it is prevention at which we aim, it is hard to see how this could be effected by a doctor who is called in only after the patient is taken sick. Besides, his words reach only a few people, whereas the printed

word, delivered with but little more effort, may reach thousands. Again, opinions vary, and the family doctor's personal views may conflict with those of some other physician's and the patient not only be puzzled, but lose confidence in the medical profession.

Instruction of Public by Doctors Collectively

These objection are all met by the instruction of the public through the collective effort of medical men in cooperation with newspapers and other periodicals.

A feasible plan is as follows:

A medical association appoints a committee of about a dozen men and imposes upon them the duty of compiling each week a short, clear statement in simple language of the accepted views of medical science upon some question of hygiene concerning which the public requires accurate information. The responsibility for the statements is then not that of one man, who may impose himself upon an indiscriminating public and may lead them to error perhaps for venal ends, but is seated in a set of selected men who themselves are responsible to their colleagues. Self-interest and inaccuracy are thus eliminated in the greatest possible degree.

A plan of this kind would add enormously to the prestige of the medical profession by preventing exaggerated ideas on the part of the public as to the essentialness of differences of medical opinion. Scoffing at the ephemerality of medical theory would then diminish; for theories still under discussion would be exploited only by men whose irresponsibility could be authoritatively declared through an impersonal medium. No blow more deadly to the charlatan could be given than that of the authoritative contradictions to the pretensions of their advertisements which could be furnished in the health-columns.

The method is superior to that of establishing a health magazine under the auspices of the medical profession; for the newspapers eventually reach everyone, whereas a health paper is read by only a few interested people.

There is no doubt that susceptibility to the wiles of the charlatan has been nourished

*This and the paper following, by Dr. Williams and Dr. Owens—both invited guests—were in the nature of discussion, upon request by the Society.—Ed

by the thousands of so-called physicians who emanated from the sham medical schools—now nearly suppressed. These men could only live in an environment of lay ignorance. The practice of medicine was a simple matter when it consisted merely of giving some drug as an antidote to each symptom. Such men could not conceive the genesis of affections or the processes occurring in the body. Their education was neither broad nor deep.

Some Causes of the Rampant Charlatanry

But it is not only to these men that we must attribute blame for the arising of the charlatanry represented by the numerous special or exclusive medical cults. Had the pathogenesis of disease been more than mere guess-work, the absurdities of homeopathy could have received no adherence. At a later day, osteopathy and chiropractic would have had no opportunity had more medical men realized the nutritive influence of massage and the importance of reflex mechanical stimulations. A plea has been made for the retention of these special schools of practice, provided that applicants pass the examinations of the state board as to fundamentals of medicine. Only those who are ignorant of general practice could advocate such permission. In very few cases can a single mode of treatment be adhered to without detriment; and only he who has considerable experience in all modes of treatment is capable of pronouncing an opinion as to what mode is most suitable in a particular case.

This consideration is believed by many not to apply to psychological disturbances. So far in error is this contention, however, and so widespread is it (medical men otherwise apparently intelligent having, to my knowledge, referred cases to lay faith-healers) that I have recently taken pains to illustrate the fallaciousness of this belief by the recital of some cases which had been referred to me for psychic treatment, but which I found to be suffering from affections for which the therapeutic indication was physical and not psychological. In several cases, the mental symptoms were due to cardiac insufficiency, in some to arteriosclerosis, and in one remarkable example

to a disorder of internal secretion; while organic nervous disease is often incriminated

The Necessity of Psychopathologic Knowledge

A profound knowledge of psychopathology is necessary for the diagnosis of some few cases; but a considerable number of people could be safely managed by general practitioners who would take the trouble to obtain a knowledge of the diagnostic criteria of psychogenetic disorders. It is unfortunate that the presentations available in the textbooks are, up to the present, entirely inadequate to this purpose. But medical periodicals are now devoting much attention to this aspect of medicine.

Of course, there are ill-digested theories, and many have rushed in where angels fear to tread. But a critical-minded man should not for long be deceived by the fantastical or ill-considered. How many medical men can offhand refute, to the satisfaction of a logical lay man, the false notions of the Christian scientist? Do we often find a doctor able to explain clearly the meaning of hypnosis? What conception of a psychogenically contracted muscle has the average doctor? Regarding hysteria, how many physicians have transcended the inconsequential farrago compiled in the textbooks? When the Christian scientist's remark, that a boil itself is not painful, was related in a meeting of medical men discussing quackery, much laughter was heard. The spirit of derision will not refute the arguments of Christian science. In this case they are right. If you do not believe it, cut the afferent nerve from the boil, and then where is the pain?

Doctors' Mendaciousness Fosters Quackery

Another medical attitude which fosters quackery is mendaciousness to patients and their friends. My experience has shown me that the doctor is *expected to conceal the truth*. Hence, all his statements are habitually received with qualifications. Were mutual confidence between patient and doctor the rule, untold suffering might be obviated, especially among the people with fine susceptibilities. Nowadays, many

patients who suffer from false beliefs regarding their condition cannot have them removed by their physician; for the patient is convinced that the doctor is only lying to him in order to allay his alarm.

Absurd credulity regarding physiology and medicine is not confined to the poor or uneducated. The so-called higher education gives no immunity from this; for it often takes people away from truth and nature and directs them toward the fallacies of metaphysics, the vagaries of false art, and the sentimentality of an untrue literature.

The key to lock the door on the psychological quack is for the patient to know himself. This knowledge he can best obtain from a physician who has instructed himself in the psychology of the morbid and the healthy, and who has learned to analyze his patient's mind and does not fear to impart to him the truth which he seeks. His object should not be to inspire faith, but to impart knowledge and to secure healthy mental action.

* * *

Note 1. "Faith Healing" is a misnomer; faith never heals in itself, but it may prevent noxious influences of mental depression.

Note 2. How many physicians attempt, or are competent to investigate, the pretensions of those they employ to administer massage?

THE DOMINANCE OF SUGGESTION

By W. O. OWENS, M. D., Washington, D. C.

IT is amazing to see how we, one and all, are dominated by suggestion. The quack and the patent-medicine man both depend upon it absolutely; all medical men use it every day in their work either consciously or unconsciously; more than four-fifths of all so-called cures by the quack, the patent-medicine vender, the medical man, the priest, are neither more nor less than a result of the application of the laws of suggestion done knowingly or, as the result of training, unconsciously. But for this, the quack, the patent-medicine man, and more than two-thirds of the medical men would go out of business. The cure for these evils is to

educate first of all ourselves, and then the people as fast as we learn.

There is at present a very strong movement looking to the education of the people, and through that to an improvement of the general health conditions. The large life-insurance companies are beginning to recognize the fact that an increase in the average length of human life, particularly that part of it known as the productive period, is not only of very great value to the state, but also results in a very large increase in their own earning capacity. The very natural result is that many of these companies now maintain a medical department for the purpose of examining the risks, and for the further purpose of advising their policy holders concerning their health and how to protect it, some of the companies going to the point of issuing a publication which they send to all of their policy holders. They are awakening to the fact that all legislation looking to the betterment of public health, are measures also very much to their advantage, and in some instances they have instructed their agents to assist such measures.

The only way to eradicate the fakir is so to educate ourselves that we can explain fully to our patients, tell them exactly where and what the difficulty is and the result that is to be produced, and then to produce it.

The Fakir Depends on the Power of Suggestion

The fakir depending on suggestion for his results makes his suggestion, the patient accepts it, and the cure is made. His failures never come back to plague him. He makes his suggestion in positive terms, and depends on the fact that the body will very generally throw off infection if given a decent chance.

Recently one of the most intelligent men I know of went to one of these men with a pain which had continued between his shoulders for several years. This man worked over him for two or three weeks and at last succeeded in reducing a partial dislocation of his third dorsal vertebra, and he has been free from this pain two years. What will you call this, suggestion or a reduction of a dislocated third dorsal?

The Limitations of Psychotherapy

By A. L. BENEDICT, A. M., M. D., Buffalo, New York

EDITORIAL NOTE.—So much has been said in extravagant praise of the possibilities of "suggestion," or psychotherapy, that it is refreshing to read a cool, level-headed expression from the other, and more rational, viewpoint, such as that presented this month by Dr. Benedict. Every physician should read this paper.

FOR a time, the medical press teemed with articles on the subject of psychotherapy, but, for a year or more, comparatively little has been heard of it. Fashion in medical study is to be deplored. When a subject has been so thoroughly discussed and observed that it is, humanly speaking, thoroughly understood, it is proper to relegate it to textbooks and undergraduate lectures. It can scarcely be claimed, though, that this point has been reached with regard to psychotherapy. If it is of value, it should be kept before the profession. If not, it should not be laid to rest without a thorough necropsy, that we may understand why it has died out. Such information will be of assistance in enabling us the better to judge of the next popular fad.

Diseases may be classified in three great divisions: psychoses, functional disturbances, organic lesions. It is, however, difficult to distinguish accurately among these classes, either in the sense of diagnosing an individual case or in that of establishing a definition.

The Three Divisions of Diseases Defined

Without troubling to elaborate a formal definition, but using plain terms in preference to technical ones, it may be said that a psychosis indicates an imaginary or reasonless condition. For example, the patient complains of a pain which does not exist; of diarrhea, indigestion, cough, weakness, faintness, and so on, for which there is no cause and which may be relieved if the patient can be made to think that the trouble is mental rather than physical. It may even be said that a psychosis is a moral condition—a lie told by his own brain to the patient himself and repeated to others and, perhaps, be-

lieved by others when he himself is half aware of his self-deception.

A functional disturbance may be either of two kinds: In one class of disturbances, no pathologic change is detectable in the organ concerned, and, so far as we can judge, no degree of improvement of histologic technic would demonstrate an abnormality in the organ itself, but there is an obvious disturbance of the efferent nervous stimuli or of blood supply or other supply of raw material. In some cases, the disturbance, functional so far as the primary organ is concerned, is plainly organic so far as the nerves, vessels or other tributary organs are concerned; again, no matter how far back we try to trace the functional disturbance, we reach no organic lesion. In the other class, including diabetes, heart block, hyperthyroidism, hyperchlorhydria, etc., the lesion is now pretty definitely understood, but we continue to use the term *functional* as a matter of convenience because of the direct importance of the primary disturbance of function and also, in some instances, because we can correct the functional abnormality without ameliorating the organic basis.

It can now be appreciated how functional disturbances, on the one hand, merge with those general disturbances which we term psychoses; and how, on the other, it becomes difficult to defend the policy of calling one manifestation of disease a functional disorder, while another is spoken of as a mere symptom. But, if a functional disturbance for which we in vain attempt to find an organic basis, following up the nervous, vascular and other tributaries of an organ, really has no organic basis, is it proper to hold that it is, so to say, genuine when it involves some single chemic or motor phenomenon of a viscus, while we

bring in the conception of a moral issue, a self-deception, when it is of more general nature?

Hysteria a Mental Aberration

It is, to say the least, charitable to suppose that the hysteric person, using the term broadly, owes his symptoms to some form of toxemia, substantially like that of gout, uremia, intestinal putrefaction, acidosis, general fevers, or of exogenic poisons such as alcohol, morphine, atropine, and so on. Or, on the other hand, we may, with equal charity, hold that the neurotic individual is so because his brain-centers are, in some undiscovered way, defective or poorly correlated, as in many cases of indubitable insanity in which the necropsy fails to explain the condition.

It is worth considering that practically every individual manifests the essential elements of hysteria and thus, potentially, may be considered to be liable to any symptom of a psychosis which is supposed to be amenable to some form or other of psychotherapy. Moreover, the indubitably insane person manifests the same symptoms, but in more aggravated degree and still less amenable to treatment. It is only a series of gradations, from the lack of self-control manifested by an imprecation or a tear to insanity, and somewhere about the middle is the vaguely understood condition called hysteria or expressed by various other phraseologies.

Chemical and Mechanical Factors Involved

It is equally important to bear in mind that the breaking point of self-control is reached in every normal individual by some conceivable degree of physical fatigue, mental strain, emotional stress, acting singly or together. It has already been implied that this breaking point is movable in the scale of resistance, and depends largely on purely chemic conditions of the bodily fluids, either due to poisons introduced from without or elaborated by bacteria within the tissues or cavities of the body, or produced by defective metabolism in various ways.

It is obviously a gross diagnostic error to consider as hysteric the delirium of typhoid

fever, or of alcoholism of one form or another, or the manifestations of uremia. In the writer's field of interest, so called hysteria is often explained by an indicanuria, an excessive urinary acidity, an undetected hepatic sclerosis. From the mechanic standpoint may be mentioned the tugging on its nerves of a movable kidney or other prolapsed viscus. Gynecologists find many organic conditions which justify the early conception of hysteria, and of its name (derived from the Greek word for womb). Indeed, the results of gynecology among insane patients support the contention that insanity is, to some degree, merely a major psychosis. Other so-called hysteric states are due to colitis, either general or limited to the sigmoid, cecum, appendix, and so on, and a large school of physicians is of the opinion that colitis is essentially a neurosis, instead of being merely the cause of neurotic manifestations.

Sufficient illustrations have been mentioned of the dependence of a neurosis on a real chemic or mechanic state. The list, in its entirety, would be large and varied enough to warrant the conclusion that we are scarcely justified in employing the term hysteria simply because the exact mechanic or chemic excitoreflex cause is not apparent. It is merely a difference in degree that separates gross negligence in diagnosis from the detection of conditions requiring special skill, and it is highly probable that other mechanic and chemic causes exist which the profession as a whole is still unable to recognize.

Psychotherapy Can Not Remove Organic Lesions

It may be expressed as an axiom, that psychotherapy can not remove an organic disease, even if the latter is directly due to a psychic factor. No amount of suggestion and pacification, for example, can cure a hemiplegia excited by an attack of anger. A very wide range of organic lesions is due to factors which may be brought into action or inhibited by nervous conditions. Ruptures and embolisms of vessels produce widely different phenomena in different organs. The variety of lesions due to voluntary inhibition of evacuation of feces

and urine, to sexual perversions, to respiratory restraint and strain, the misuse of the organs of special sense, are examples of the extent to which prophylaxis is easily under voluntary control, while cure, by this or other means, is difficult or impossible.

Similarly, it may be laid down as an axiom that a definite chemic or permanent mechanic state is not amenable to psychotherapy.

Various extreme schools of psychotherapy, especially of charlatans, argue that, if a disease is caused by a mental factor, it may also be relieved by mental force. To this claim, there is no better answer than the exquisite irony of the old rhyme:

There was a man in our town
And he was wondrous wise.
He jumped into a bramble bush
And scratched out both his eyes.

And when he saw his eyes were out
With all his might and main
He jumped into another bush
And scratched them in again.

Functional Disturbances Amenable to Suggestion

On the other hand, it may be contended with equal propriety that any function, whether essentially chemic, motor or otherwise (if there be any otherwise), which is due to the maintenance of nervous stimulus or any lack of function due merely to the lack of such a stimulus may be modified therapeutically by securing the proper nervous effect, positive or negative, through psychotherapy.

This dictum is, however, subject to numerous practical qualifications, which it is extremely difficult to codify. One would be tempted to lay down the rule that a function normally under direct control of volition could be directly controlled by psychotherapy, and that a function controlled by involuntary centers could not be thus ameliorated. But such a rule does not stand the test of experience. For instance, psychotherapy cannot be directly invoked to influence, except very transiently, abnormal respiratory rhythm and frequency, urinary irritability, tremors and paralyzes of the voluntary muscles. On the other hand, it can, to a large degree,

though indirectly, influence cardiac rhythm and frequency, and even the state of the vessels, as manifested in blushing, syncope, and the condition of the cerebral vessels required for sleep.

Classification of Psychotherapy

Psychotherapy may be classified, according to the method of application, somewhat as follows:

1. A command, more or less emphatic, with more or less emotional appeal, threat, etc.
2. Explanation of the relation of extrinsic factors, state of mind, etc., to function.
3. Autosuggestion: (1) induced by ordinary suasion; (2) induced by hypnotism; (3) induced by permanent domination by some sort of religious or superstitious influence.

Let it be repeated that none of these forms of psychotherapy can directly modify an organic lesion, a permanent mechanic condition, or a chemic condition of relatively stable nature, especially if essentially extrinsic. All that can be expected is the control of a function of a labile nature. It is not impossible that such control may be obtained in spite of the persistence of an ineradicable lesion—much work may be got out of a partially disabled engine—and it is by no means strange that the subjective suffering of a perversion of function may be caused to be forgotten. Genuine relief may be expected only in cases in which the disturbance, traced to its ultimate organ, is functional throughout. Genuine cure may be expected only in accordance with ordinary operation of the *vis medicatrix naturæ* or of artificial therapeutic measures of other kind, favored by the functional relief or ignoring of subjective effects, and, so far as ultimate cure is concerned, psychotherapy can obviously act only as the symptomatic treatment of details by other means.

It is likewise obvious that simple command is not widely available as a therapeutic agent. It is available only for immediate effect—save as it involves the principle of autosuggestion by suasion—and mainly for the control of habit-spasms, to en-

force general emotional control, although syncope can often be prevented in this way. Attacks of aerophagia, gagging, psychic vomiting, some forms of irritative cough, or sphincteric weakness may be thus treated.

The second heading, psychotherapy by explanation of the relation of extrinsic factors, state of mind, etc., may require an apology. In a sense, the intelligent control of reflexes, by avoiding or purposely introducing exciting causes, is far removed from the ordinary conception of psychotherapy.

Forgetting, for the moment, problems of disease, we know that there are everyday acts so simple and generally understood that it is necessary to say only "Do," or "Don't," while others, more complicated, require also an explanation. An analogous relation exists between the simple disease-phenomena just mentioned with regard to which one may say, "Do," or "Don't," and gastric secretion, cardiac palpitation, certain states of high arterial tension liable to cause apoplexy, etc. To a considerable degree, such conditions may be prevented or, in so far as they remain purely functional, relieved by an explanation of the beneficial influence of a pacific state of mind, of developing an appetite, etc. In the broad sense, this is comprised under psychotherapy.

The Term "Autosuggestion" Not A Happy One

The term autosuggestion is not entirely beyond criticism. Many deny that one mind can influence another. Indeed, from the materialistic standpoint, such influence is an absurdity and, as language has developed everywhere as an expression of thought based on the opposite conception of mind, it is difficult to give verbal expression to our meaning without employing contradictory terms. Without going to the opposite extreme from materialism, and viewing mental phenomena in a superstitious light, it is still in keeping with ordinary experience to hold that, in some way, one mind does affect another. At any rate, autosuggestion, from the practical standpoint, implies a preliminary influence from

the outside, the term *auto* signifying merely the ultimate object of producing a habitual discharge of nervous energy along certain channels.

Of the three forms of autosuggestion, that by simple suasion is the most generally available and the least objectionable. Just how the establishment of autosuggestion by suasion is brought about, must depend on circumstances and to a large degree on individual tact, also on the personal equation of the physician. Speaking personally, the writer would express a preference for a progressive suggestion, in keeping with the rationally expected progress of relief, rather than the immediate forcible impression on the patient's mind that such and such a symptom must disappear. Nine times out of ten, it will not disappear immediately or for several days and, not to mention the discounting of the physician's reliability, the fact that a symptom does not disappear, after the patient has been told and has been telling himself that it will and must, tends to inculcate the opposite autosuggestion, that it can not disappear. On the other hand, if the initial suggestion is of relief in degree, lessened frequency of recurrence and gradual improvement, this reversal of autosuggestion is not likely to be brought about in a patient at all receptive, even if no noticeable amelioration occurs for some time.

The Limitations of Psychotherapy

Another important point to be considered is the limitation of the possibilities of psychotherapy in general. It is useless to suggest the impossible. A rather amusing illustration of this point has lately come to the attention of the writer. A Christian scientist was suffering the agonies of an ulcerated tooth. Her little boy, bred in the tenets of that cult, talked to her against yielding to error and enjoined her to think of God, with the result that the good lady became so angry that she renounced Christian science.

Hypnotic Suggestion Is Dangerous

Hypnotic suggestion is something with which the writer has had very little experience, from the conviction that it is

rarely justifiable, on the ground that it virtually enslaves the individual and ultimately weakens the factors of self-control necessary to the cure. Another point to be considered is this: relief by hypnotism is the relief of a detail, and the very means employed tend to convince the patient of the reality and nonfunctional nature of the symptom. Hence, he is extremely liable to a recurrence of any hysteric tendencies in some other direction and with firmer conviction of the existence of an essential disease. For example, a clergyman, a man of high scholastic as well as medical education, was "cured" of hysteric aphonia by hypnotism. In spite of his medical training, he was firmly convinced that hypnotism had cured him of a definite disease, instead of a purely functional manifestation, and he gave public expression to his gratitude, partly to the doctors, partly to Providence. Imagine the further course of such a case—any kind of ache or pain or neurotic manifestation would be magnified and relief would become increasingly difficult.

Without going so far as to hold that in every case the physician should brutally tell the patient that his hysteric symptom is (qualified) nonsense, the writer feels that in no case is the cure complete until the patient is, somehow and sometime made aware of the essential nature of his complaint and of the importance of control by himself.

Autosuggestion and Christian Science

Autosuggestion by some sort of permanent domination of a religious or superstitious nature is, at present, best exemplified by Christian science, although it should be recognized that very similar results have been achieved for centuries in various countries, under religious influences of various types. So far as Christian science is concerned, it should be remembered that its numeric strength consists largely of persons who have had no occasion to make any serious therapeutic test, but who are more or less formally affiliated because the general social and religious atmosphere is pleasant.

So far as therapeutic tests are concerned, Christian science succeeds in three groups of cases: (1) imaginary ailments; (2) ordinary functional disturbances, amenable to any kind of psychotherapy; (3) organic diseases, usually of mild and very chronic type, in which symptoms may be ignored, as arteriosclerosis, interstitial nephritis, mild diabetes, moderate ocular deformities in which eyestrain is not great and in which the patient may readily persuade himself that he can see without lenses.

A little consideration will show that, in psychotherapy as in business, a systematized big undertaking has a specious advantage. Moreover, Christian science, unlike the private physician, is irresponsible at law.

The writer, as probably many another physician, has been amazed at the number of Christian scientists who have recourse to ordinary medicinal as well as surgical treatment. This inconsistency can often be blamed on a meddling relative or friend, or it simply is not explained at all. From the lay standpoint, it is not surprising, nor even unreasonable, that medical relief of, say, a mastoid abscess, or a pneumonia, or an attack of jaundice is regarded as of minor importance, as compared with insomnia due to no particular cause other than the establishment of a bad habit, or the annoyance of wearing glasses for astigmatism, or headaches due largely to habits of worry and bad temper, which cannot be cured by occasional visits to a physician.

Neither is it at all surprising that the actual subjective benefit secured from an association which holds frequent meetings, which includes a large social element and which acts almost continuously by the repeated suggestion of a large number of individuals, each forming a different contact, yet all with the same ultimate tendency, should be superior, in certain cases, to the effect of psychotherapy by a single individual, seen briefly and occasionally, in whose case the business element and the normal standard of objective, material methods is constantly before the mind of the patient.

Some Summer-Time Hints

Or Practical Helps for July Diseases

By **GEORGE L. SERVOS, M. D., Fallon, Nevada**

WITH the advent of the heated term, we come in contact with maladies peculiar to the season.

Owing to the extreme heat or humidity, many of the functions are interfered with. Early in the season the majority of us are prone to consume large quantities of new vegetables and fruits, in many instances a month or more prior to the time when they are really seasonable in the climate where we happen to reside. The eating of such food interferes to a greater or less extent with the functions of digestion and there is very liable to follow an irritation of the gastrointestinal tract. In some instances the fruits so taken are not as sound as they might be, and not infrequently do we eat fruits that may be infested with the microorganisms of putrefaction. The latter often set up an irritation of the bowels which may persist throughout the heated term, in many instances being followed by attacks of acute inflammation accompanied by diarrhea and other undesirable conditions.

Iced Foods and Cold Drinks

Early in the spring the sale of ice-cream is inaugurated, and, then, as a rule, we are all eager to eat large quantities of this dainty. It is now the vogue to add to the ice-cream either carbonated water or to have a liberal amount of fruits or fruit syrups added to it. Taken occasionally, such a dish undoubtedly is but little harmful, but if, as is so frequently the case, either ice-cream or ice-cream sodas or sundaes are eaten or drunk to excess, we find a toxic condition of the bowel to follow, and finally a general toxemia, due to absorption from that organ.

In many parts of the country, especially those where a high degree of humidity accompanies the summer heat, insolation is not uncommon. In many cases this condition follows that of autotoxemia, due largely to the causes outlined above. We

rarely see a case of heat-prostration occurring in those who are careful regarding their diet and who see to it that their bowels are kept clear and clean at all times of the year.

Young children, especially those who are nursing and depending largely upon cow's milk or one of the manufactured foods, are very prone to bowel and stomach troubles during the summer months. Cholera infantum is common at such times, its etiological factors being improper feeding combined either with extreme heat or a high degree of humidity.

The Value of Preventive Measures

Among the specific conditions, or diseases, we find that malaria prevails to a very considerable extent in the newer portions of the country or in those portions adjacent to marshes or undrained spots where the mosquito breeds. Typhoid fever likewise prevails in those portions where the water supply becomes infested with the specific organism, due to faulty hygiene. In the southern countries we find more or less prevalent diseases peculiar to such localities, including typhus, yellow-fever, cholera, dysentery, and other gastrointestinal maladies, their frequency being governed by the local sanitary conditions.

In all of the pathologic conditions peculiar to the heated term we find that preventive measures, if properly carried out, overcome a tendency to their occurrence. If possible, prior to the arrival of the hot months, the practitioner should encourage his patrons to clear out their bowels, and keep them clean at all times during the heated term. He should offer counsel as to diet and recommend conservatism at all times. He should advise that at the least sign of any irritation of the gastrointestinal tract his patron should come to him for consultation and treatment.

Personal hygiene undoubtedly is of greater importance during the summer

months than at any other time of the year. At this time the skin is very active, as a rule, and after the least exertion is covered with excretory material which should be removed at frequent intervals, that it may not undergo decomposition, thereby favoring an irritation of the cuticle and the possible interference with the functions of that organ.

The First Point of Therapeutic Attack

When we find instances of gastrointestinal disturbances during the summer months, our first effort should be to clear the stomach and bowels of their contents, thoroughly and completely. In order to accomplish this, it is probable that calomel and podophyllin, followed by a laxative saline, are our best agents. I prefer administering calomel in 1-6 grain doses, every half hour until a total of 2 grains has been taken. To every other dose of the calomel, I add 1-6 grain of podophyllin. Following the last dose of the cholagog, at an interval of from two to four hours, an effervescent laxative saline, preferably one carrying 60 percent of purified magnesium sulphate, is administered, at half-hourly intervals, in teaspoonful doses until such time as the discharges from the bowels are absolutely free from all solid material. If the flow of bile is deficient and the liver inactive, I find that the addition of 1-8 grain of bilein to each dose of calomel overcomes this deficiency and stimulates the action of the bowels.

Following the clearing out of the bowels, they should be kept clean by the use of the sulphocarbolates to effect or until such time as the feces are of normal consistency and odorless. If there is an apathetic condition of the bowel, juglandin, in dosage of from 1-2 to 1 grain three times a day, acts to stimulate the bowel function.

Look Out for the Eliminants

If such cases as a general toxemia are encountered, in addition to the local intestinal conditions, the eliminating functions should all be stimulated. That the liver may be stimulated to increased action, the administration of emetin and colchi-

cine, either or both, is indicated. Xanthoxylin favors elimination by the kidneys, and in that manner removes many of the toxic substances.

If there is an excess of acidity, as shown by the condition of the urine, the alkaline treatment is indicated, and here we find the sodium and xanthoxylin compound of avail. The bowels should be kept relaxed at all times, during the course of treatment, by laxative morning doses of the effervescent saline.

Insolation is, as a rule, treated symptomatically. If there is a pronounced congestion of the internal tissues, we find glonoin, which dilates the peripheral vessels, one of our best primary remedies. In order that the excess of blood may be held to the surface, the subsequent use of atropine is indicated. If there is a high degree of fever, aconitine and veratrine are indicated, to be employed to effect. In hyperpyrexia, cold applications or cold baths are to be employed in connection with the internal antipyretics. In all cases the bowels should have attention, being cleared out and kept clean.

The Folly of Opiates

In the past, under the older systems of treatment, the mortality in cholera infantum has been appalling. Opiates were employed, and thereby, instead of ridding the stomach and bowels of the irritative substances, they were locked up therein, to become too active again with the subsequent loss of opiate effect.

Under the newer plan of treatment, elimination is favored. Initially the bowels are cleared out with calomel, followed either by a saline laxative or castor oil. If the temperature is high, cool enemas are given, the water being from 5 to 10 degrees below the normal body-heat. If there is pronounced diarrhea, zinc sulphocarbonate should be pushed to effect, otherwise the combined sulphocarbolates, to effect. Copper arsenate is of great value, both as an astringent and intestinal antiseptic in such cases. It may be combined with hydrastin and strychnine. If the condition of the skin is cold and clammy with pallor of the patient, and there are symptoms of

internal congestion of a considerable degree, atropine should be administered until such time as there is redness of the skin. Aconitine is undoubtedly the best remedy we have to control fever in this condition. For the pain, Waugh's anodyne for infants or the calmative suggested by Candler are effective.

No food should be given until the pronounced symptoms have disappeared, but the patient may have boiled water, either with or without the addition of barley, with the doses of the sulphocarbolates, this tending to keep the gastrointestinal tract bathed with an antiseptic fluid at all times. The idea is to keep the bowels functioning properly and clean at the same time, in this way keeping them rid of substances of an irritative character.

Subsequent to the attack, proper feeding should be inaugurated and the patient should be placed upon tonic treatment. The proper hygienic measures should be taught the mother or other person in charge of the infant.

Summer-Time Biliousness

"Biliousness", as it is called, is frequently encountered during the summer months, this being due either to overeating or to faulty personal hygiene. The remarks applied to autotoxemia apply to this con-

dition, as it is, in the majority of instances, nothing more nor less than a toxic condition due to absorption from the bowels.

Clear out the bowels with calomel, podophyllin and leptandrin, 1-6 grain each every half hour for from four to nine doses, on retiring, and follow, in the morning, upon arising, with saline laxative to effect or until the bowels are completely emptied of solids. Strychnine arsenate and quassin are indicated for their stimulating effect. Colchicine, 1-134 grain before meals, and chionanthin, from 1-2 to 1 grain, after meals, favor elimination.

The stimulants of the bowel action, as bryonin, juglandin, euonymin, iridin, chelidonin, frequently are indicated. Xanthoxilin, to favor elimination by the kidneys. Arbutin, as a diuretic, is of avail in these cases, in that it favors the elimination of waste. Bilein, either alone or in combination with calomel and podophyllin, is indicated wherever we find a deficiency of bile in the bowel discharges.

The diet should have attention in all cases, while during treatment the patient would better be starved for the time being. The subsequent treatment consists in keeping the bowels and other excretory organs functioning properly at all times. Constipation should be corrected in every case and such correction maintained.

What Remedies Have You Found Most Reliable and Useful?

By JOHN M. SHALLER, M. D., Denver, Colorado

WHAT single remedy have you found to be the most reliable and useful and upon which you can generally depend and feel confident that it will produce the results you desire?

It is just such confidence in medicine that stands for success in the treatment of disease.

The Absurdity of the Drugless Systems of Cure

Nature, mind, suggestion, faith-cures, drugless treatment, and all such have not

lowered the death-rate. Any improvement in this direction has come from medical men, chiefly from the various methods of prevention and improved methods of cure. The "drugless" people, by their carelessness and ignorance, encourage the spread of disease. This is true especially of that deluded class which denies the existence of diphtheria, scarlet-fever, and all other contagious disorders.

When one denies the evidences of his senses, he is justly adjudged insane. If one's mind does not analyze, modify and

properly adjust the evidence brought to it by the senses, that mind is not sound.

When medicines are given, and certain improvements follow, and when such results can be generally re-produced, there must necessarily be some good in them. This is evidence conveyed by the senses.

To deny the existence of disease and to deny that medicines are palliative and curative is certainly a wonderfully strange, incongruous state of affairs. Such claim may either be a fraudulent one or based upon delusion, depending entirely upon the charitable manner or otherwise of looking at it. Because those who deny the existence of disease have for their life-work the ability to cure disease—C. O. D.; in fact, the entire foundation of their cult rests upon that. Take the curing of disease out of that particular church creed, and there is nothing left. One of their established tenets is to follow in the footsteps of The Christ. But, pray, were His methods C. O. D.? Yet, many who deny the power of medicines to cure make a living by prescribing and administering medicines!

Fortunately the class of physicians who affect the belief that medicines are not curative is comparatively small. Because one great professor has said that medicines are not curative, thousands of others repeat this oracle, especially when they fail to effect palliation or cure.

Medicines are both palliative and curative. They are as much so as surgical operations, more so than the numberless faith-cures and new cults of healing that are daily springing up.

No matter to what class you belong, you will become sick, and you will die, and sickness will occur at all ages and from all causes. No class of people on earth are exempt from sickness more than other classes, unless they have learned to live hygienically. This cannot be brought about by any methods of cure after sickness has been acquired, nor by denying the existence of disease, but by recognizing the cause and preventing and destroying that cause.

What evidence have we that medicines are both palliative and curative? Every day's experience demonstrates it, and tomorrow's work will confirm it.

If each physician will studiously ask himself the question, What remedies have I found to be reliable? he will soon settle the matter in his own mind. If he will publish his experience, he will convince *some* of the skeptical. But only *some* of them.

In an active, general practice there is one remedy that stands out very prominently as being the most important and most frequently used by the writer. It would be extremely interesting and highly instructive if every physician would write about the one remedy which gives him the greatest satisfaction and upon which he can usually depend and reasonably to expect uniform results from it.

My Best Stand-By Is Aconitine—What Is Yours?

Particularly among children, no one remedy has proved to be so uniformly useful as Abbott's or amorphous aconitine when treating acute diseases accompanied by fever. Because these diseases are very common, the need of a reliable febrifuge is easily understood.

No doubt each physician prescribes some one favorite febrifuge which he generally uses in treating acute inflammatory conditions. With this he makes various combinations to suit the symptoms as they arise.

The writer's chief reason for preferring aconitine is that it rapidly, effectually and safely reduces fever, no matter what the cause (except from sepsis). Then, if given early in acute, active inflammations, such as pneumonia, bronchitis, and pharyngitis, both in children and adults, these diseases are frequently checked or aborted. The remedy is pleasant to take, especially for children, and the dose is easily regulated.

The advantage to the physician, outside of rapidly reducing fever, is that he can conveniently carry aconitine granules with him and administer the first dose of the remedy himself. This produces a strong psychologic effect and inspires confidence.

Aconitine granules should always be in the pocket-case of the physician, because of their convenience and usefulness. As familiar as doctors are with aconite, they

are not always so well informed about its active principle, aconitine.

In acute lobar pneumonia, if prescribed soon after the initial chill or convulsion, or before solidification begins, the probabilities are that congestion will not proceed to the exudative stage. The temperature can be diminished, if necessary, and excessive fever may be reduced even if solidification is present. It frequently happens that normal temperature is reached within twenty-four hours, if treatment is begun early. This is not the experience of this writer alone, but of many thousands of progressive physicians. At the same time that fever is diminished, the pulse is reduced in rapidity without losing in strength. The secretions of the skin and kidneys increase and the mucous membrane of the mouth in particular becomes moist; in fact, when the tongue is dry, its mucous membrane becomes moist as one of the first effects of the action of this remedy.

In pharyngitis, laryngitis and in bronchitis, aconitine acts quickly in reducing inflammation both in adults and children. Because it accomplishes this and can generally be relied upon to do it uniformly and without deleterious results, is the chief reason for its recommendation.

**Aconitine, if Cautiously Administered,
Is Harmless**

Like all other medicines that are potent for good, if not properly understood or if indiscriminately prescribed, aconitine may become harmful. In prescribing opiates, certain exact rules must be strictly followed if beneficial results are to be obtained. With aconitine, similar precautions obviously are necessary.

In prescribing this remedy for adults, the following rule has stood the test of many years:

The Aconitine Rule

One granule, containing 1-134 grain of Abbott's or amorphous aconitine is the (average) minimum adult dose. When active fever is present, as in acute inflammatory diseases (except sepsis), one granule dissolved in water is administered every half hour or every hour. If the temperature

is 104° F. or higher, the pulse full, the face flushed, the skin hot and dry, one granule may be given every fifteen minutes for one or two hours. Two granules have frequently been given in very active fevers, in robust patients. When the temperature begins to decline (as shown by the thermometer) and when the pulse-rate is lowered, or when the patient's general condition improves, the dose is then given every hour and is so continued until the temperature is below 100° F. After this the medicine is given every two hours.

Aconitine Will Abort Fevers

The object in giving aconitine so frequently is to obtain physiologic results as soon as possible, in order to abort the inflammation and to check the disease. This can be done, of course, only in the early period of the attack, before the disease is established. The duration of the congestive stage varies. It is during this time, however, when premonitory symptoms are more or less characteristic of impending inflammation that aconitine should be used with the idea of aborting disease.

Every congestion does not result in inflammation. A great many more would not if physicians generally made deliberate efforts to check a condition which from its very nature is transitional. This fact alone makes it amenable to change or interference by active medication. Even established inflammation is subject to change through the application of various remedies. Why, then, should congestion not be? If every active congestion could be recognized during its first hours of existence, and vigorously treated, with the idea of checking it, such diseases as pneumonia would not be so prevalent.

The public should be taught to recognize early the premonitory symptoms of inflammatory and zymotic diseases, and people should also learn to send for a physician at once, in order to enable him to begin treatment during the formative period, a time when a disease-process can be more easily changed than at any other.

Vasomotor disturbances prevail during the congestive period. Full doses of aconitine at long intervals of time paralyze the

vasodilators, which increases local congestion. Small physiologic doses frequently repeated, however, stimulate and restore the unbalanced circulation to the normal, and this without detrimentally reducing the strength of the heart.

In disease, symptoms are perhaps always accompanied by vasomotor disturbances. There is either diminished or increased blood supply.

Vasomotor Disturbances Must Be Equalized

Even if this vasomotor disturbance is an effect and not a cause, it is well known that if it can be restored to the normal, the disease may be cured. In acute congestion, in colic, angina pectoris or in asthma, remedies which flush the skin with blood produce relief.

Without vasomotor disturbances there would be few symptoms. These disturbances are very common in all febrile diseases. They interfere with the secretions and are also present in motor and sensory abnormalities. Our success in the treatment of diseases depends greatly upon our ability to inhibit or stimulate chiefly vasomotor nerve action.

The action of aconitine, like that of many other remedies, is chiefly through the vasomotor nerves. Disease disturbs this normal action. Our remedies are for the purpose of restoring abnormal nerve action to the normal.

It has long been known that so-called "colds," which are really congestions or inflammations of some kind, can be checked by hot baths, profuse sweating or forced diarrhea. This means diverting the blood from the congested area and preventing its further accumulation there. If this cannot be done, then disease follows. Aconitine acts in a similar way by flushing the capillaries of the skin, through action upon the vasomotor centers, and by indirectly reestablishing the secretions. All this is accomplished better by giving small doses frequently repeated until some beneficial change is manifest, rather than by giving larger doses at longer intervals of time because, as has been mentioned, large doses inhibit. Results are obtained more quickly and more pleasantly by small doses.

Physicians who have lost faith in medicines, or who think they have, or those who never believed in their therapeutic value, will quickly change their opinions if they become accustomed to the use of aconitine in the beginning of acute febrile movements.

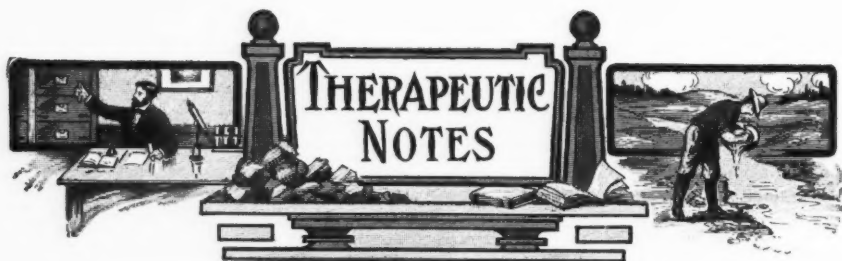
Acute Inflammatory Conditions of Childhood Best Field for Aconitine

It is to the treatment of acute inflammations of childhood, however, that this remedy is best adapted. Children furnish a very large part of the patients for the general practitioner. Many children die who should be saved, and would be, if parents sought proper medical help earlier. Non-medical treatment of diphtheria, meningitis, and pneumonia is not only an *improper help, but is criminal*.

It is also probably true that if more persistent efforts were made to abort acute congestions, many severe cases of pneumonia and of bronchitis would be prevented.

Small doses of aconitine frequently repeated will accomplish this result. The dose is simple, accurate, and easily managed. For each year of the patient's age one granule of Abbott's or amorphous aconitine (not the crystallized), gr. 1-134, is dissolved in twenty-four teaspoonfuls of water, together with one additional granule. For instance, for a 5-year-old child, six granules. For a 2-year-old child, three granules. Under one year, however, one granule in twenty-four teaspoonfuls of water is an efficient and safe dose, even for an infant under one month. It need not here be given so frequently as every fifteen minutes, unless the temperature is over 105 degrees and convulsions seem probable, as indicated by muscular twitching.

Such useful means as frequent cold sponge-baths, giving plenty of cold water to drink, keeping the patient lightly clad, the room well ventilated, the bowels free from constipation, and the selection of a proper fluid diet, or better still, no food at all for two or three days, are all extremely important additions to be personally looked after.



DIARRHEAL TROUBLES

Don't forget that these are the months for the intestinal antiseptics. The fundamental factors in the treatment of all diarrheal troubles are just these:

First, see that the alimentary canal is thoroughly cleaned out and kept free from irritating waste.

Second, feed your patients in such a way as not to add to that irritating waste.

Third, use intestinal antiseptics to keep the canal sweet and clean.

If you do these things, you will not need to stifle the pain and check the discharge by the use of opiates—a dangerous practice, especially when treating children. "Clean out, clean up, and keep clean." And don't forget the sulphocarbolates.

A NEW DIGITALIS GLUCOSIDE

Kraft reports (*Schweiz. Woch. f. Chem. u. Pharm.*, 1911, 49) some of the recent work on the active principles of digitalis. He has been especially reinvestigating the water-soluble substances of the "digitalein" group. The glucoside described under this name, it seems, has not been very definitely described heretofore, and the literature regarding it is scanty. The author has isolated a definite crystalline glucoside which bears the name "gitalin." When secured in a purified form, this is an amorphous white powder, permanent in the air, melting at 150° to 155° C., soluble in 600 parts of cold water. If this glucoside is dissolved at ordinary temperature in a very little alcohol, and the solution is mixed with half its volume of water, the mixture results in a crystalline mass, in a few minutes, this being due to the less solu-

ble gitalin hydrate. This interesting product, so far as we can learn, has not yet been placed upon the market.

SOME OFFICIAL TINCTURES

In the proceedings of The Massachusetts State Pharmaceutical Association for 1910, we read that Mr. J. W. Pollard obtained 40 samples of 4 different official tinctures from retail stores in Boston, and tested them at The Massachusetts College of Pharmacy for the percentage of extracted matter and the percentage of alcohol. This was done with a view to ascertaining how uniform such tinctures are when dispensed by druggists. The samples tested were those of belladonna, hyoscyamus, digitalis, and gentian compound.

Of the tinctures of belladonna, the lowest in extractive matter was one containing 1.05 percent, the highest one contained 3.76 percent, the average being 2.40 percent.

Of the tinctures of hyoscyamus, the lowest contained 1.04 percent, the highest, 4.27 percent, and the average was 3.26 percent.

Of the digitalis, the lowest in extractive matter contained 1.08 percent, the highest 3.45 percent; the average being 2.32 percent.

The lowest sample of tincture of gentian compound contained 1.08 percent, the highest 5.01 percent; an average of 3.09 percent of extractive matter.

Thus it will be seen that, if the amount of extractive matter can be assumed as the measure of strength, there is a variation of nearly 500 percent. Of course, the quantity of extractive does not determine the potency, but the variation shown is

significant, to say the least. There was also a decided variability of the percentage of alcohol present in the different samples of tinctures.

THYROID EXTRACT IN RHEUMATIC AFFECTIONS OF JOINTS

Horace Wilson (*Brit. Med. Jour.*, 1910, p. 1769) employed thyroid extract in two patients with rheumatic joints. One was a man of 54, severely hindered in the use of all his limbs, who had received no benefit from treatment and had become emaciated. The second patient was an older man whose disease was localized in the metacarpophalangeal joints. In the former the thyroid gland could not be felt, in the latter, slightly. The curative result was excellent in both cases.

The author believes that cases of "chronic villous arthritis" in which the process is limited to the capsules, cartilage and bone not being changed, will derive benefit from the treatment. Such affections have, in his opinion, their causative factor in disturbances of metabolism which he places in a parallel with myxedema. However that may be, the report is certainly favorable and encouraging. This mode of treatment is not new and it should be tested further.

VARIATIONS OF PLANT PRINCIPLES

According to Burman, quoted by *The Pharmaceutical Journal* (from *Schweiz. Woch. f. Chem.*), the inclement weather of the last two summers has diminished the amount of active principles contained in certain medicinal plants. This is due to the low temperatures and lessened amount of sunshine; rain, as such, does not appear to have any notable effect, since the amount of moisture found in plants is said to be the same in wet and dry years. The following figures show the percentage yield of active principle for the years 1907 to 1910 inclusive: Aconite: aconitine, 0.104, 0.100, 0.042, 0.054. Belladonna: atropine, 0.094, 0.082, 0.045, 0.046. Colchicum seeds: colchicine, 0.194, 0.160, 0.144, 0.148. *Digitalis grandiflora*: digitoxin, 0.138, 0.120, 0.067,

0.069. *Digitalis purpurea*: digitoxin, 0.078, 0.063, 0.033, 0.037. Ergot: cornutine, 0.30, 0.26, 0.25, 0.22. It will be noted that in some instances the amount of active principle present in the last two years has been practically half that of two former years.

Again is our contention as to the variability of the vegetable drugs, and their galenic preparations, verified.

PANCREATIC INSUFFICIENCY

Loeper and Esmonet (*Gaz. des Hop.*, Nov. 3, 1910, p. 1700) have obtained good results in experimental tuberculosis from energetic treatment with pancreatin. They suggest that there occurs a threefold effect, namely, digestive, general and antibacterial, and that this may prove of value clinically.

QUININE HYDROBROMIDE IN EXOPHTHALMIC GOITER

In the treatment of exophthalmic goiter, Drs. Jackson and Eastman, as quoted in *The Prescriber* (Dec., 1910, page 215), have obtained the best results from neutral quinine hydrobromide. It is important that a strictly neutral salt be used, as the acid salt does not give as good results. It is given in capsules containing 5 grains each, and to the limit of tolerance, which is rarely more than three or four capsules a day. Toxic saturation is shown by the appearance of tinnitus, and the medicine should be temporarily stopped when this appears. The administration must be continued for months or even for years.

Very frequently, we are told, the patients notice, after a week or two of the treatment, a diminution of the palpitation, the sweating, the tremor, and other nervous symptoms, and in many instances the thyroid gland diminishes in size. The exophthalmos seems to be the last of the signs to disappear, and this may not be until the expiration of two or three years. When the latter occurs, the dose of the drug should be cut down to as little even as two or three capsules a week, the patient being cautioned, however, to resume immediately the former dose at the first

appearance of any of the old symptoms. The authors, whose paper appears in *The Boston Medical and Surgical Journal*, are not certain how the quinine acts, although it seems most probable that it influences the sympathetic nervous system.

FOURTH-OF-JULY WOUNDS

Do not forget that more tetanus occurs during the two or three weeks following the Fourth of July celebration than throughout almost all the rest of the year. Remember that the tetanus bacillus is anaerobic, i. e., it develops in the absence of air—oxygen.

The physician should see to it that all wounds caused by blank cartridges, gun shots, and so on, are opened freely, so that they are exposed to access of the air throughout. Under no circumstance apply an impervious dressing, but instead open widely and cover the wound with several layers of loose gauze. If the wound is one which cannot readily be opened up throughout its course, it is the part of wisdom to make a prophylactic injection of tetanus antitoxin. This procedure will save many lives.

THE ACTION OF SOME DIURETICS

Erich Meyer reports, in *Therapeutische Monatshefte* (*Medical Review of Reviews*, April, 1911), a case of mitral insufficiency and obstruction in a young man in whom there was marked congestion and edema. These symptoms were materially improved by rest in bed and digitalis. The blood pressure was always increased during the attacks, and was decreased by treatment.

Under the influence of treatment, there was increased urinary secretion, not only in quantity but in concentration, the salt-content remaining relatively the same. In this case, the patient eliminated about 20 Grams of salt at the height of the digitalis action. Hence digitalis improved the circulation in the kidneys and thus enabled them to secrete a urine richer in salt. It may be assumed that under the influence of theophyllin the circulation of the kidney is improved and thus the epi-

thelia are rendered more efficient and excrete more salt.

TYPHOID VACCINATION

The Academy of Medicine at Paris has had a report from a committee appointed to study Vincent's typhoid vaccination. The result of a year's trial has been favorable in the army tests. Vaccinated subjects proved only half as liable to typhoid fever, and the mortality of those attacked was much lower than among the unvaccinated. The operation proved innocuous, but the immunity was not as enduring as was hoped. One curious fact developed was that for some time after the vaccination the liability to typhoid fever was greater than in the controls. Vaccination during an epidemic should be avoided.

Delorme asserted that the operation was followed by more pronounced reaction than the report claimed, such as diffuse erythema, hard erysipelatous edema, sharp pain, fever up to 104° F., vomiting, tachycardia, and syncope. There are many contraindications, such as tuberculosis, debility, and convalescence.

Netter said that of 70,000 soldiers 35,000 were vaccinated in 1908. Of those vaccinated, 158 contracted typhoid fever and 17 died. Of the unvaccinated, 481 were seized with typhoid fever, with 100 deaths. Landouzy quoted Russell's American statistics, showing typhoid fever to be fifteen times less in those vaccinated.

DANGERS OF SANTONIN

A. Mayor, in *Semaine Médicale*, according to *Monthly Cyclopedia* (April, 1911), comments upon cases recently reported by Baxter and by Freyer, illustrating possible untoward results from the use of santonin and male fern. He points out that the accidents observed in their cases were due simply to improper methods of administering the drugs. Baxter had given santonin in solution in castor oil, the patient subsequently becoming blind, while Freyer had administered a dose of castor oil before giving the vermifuge. Oily substances bring these drugs into solution,

and, therefore, favor their absorption into the general system. Santonin is not absorbed when administered in powder form and hence exerts no toxic effects, though acting on the parasites.

We have repeatedly published similar accounts, and it may be well again to call attention to the possibility of harm from santonin in oily solutions.

TREATMENT OF THE DROWNED

This being the season when "fools rock the boat," it is an excellent plan for physicians to be prepared to treat the apparently drowned. Excellent instructions on this subject are contained in a Bulletin issued by The Michigan State Board of Health. This pamphlet also gives instructions in the management of persons who are suffocated or electrically shocked. Copies of this Bulletin can no doubt be obtained on request.

THE UTILIZATION OF FATS AND OILS ADMINISTERED SUBCUTANEOUSLY

Dr. Lloyd H. Mills reports, in the May number of *The Archives of Internal Medicine*, a series of very interesting and instructive experiments undertaken for the purpose of determining the fate of fats and oils introduced into the mammalian organism by the subcutaneous route.

From comparative examination of the iodine indices of the ether extracts of visceral and adipose tissue, Mills found that it seems likely that the actively functioning viscera utilize oil and fat, absorbed after subcutaneous injection, for the direct performance of their functions, and that the storage of the foreign fat given in excess of the nutritive requirements takes place principally in the subcutaneous tissue, liver, and lungs, and to a small extent in the kidneys and spleen, while the pancreas and stomach and intestines are practically uninfluenced.

This demonstration that, after injection under suitable conditions, oils can be absorbed to an amount sufficient to cover so large a proportion of the calorific requirement suggests the application of such in-

jections to the treatment of wasting diseases, to the cachectic conditions associated with imperfect metabolic processes, and especially to tuberculosis, in which the intolerance of fats is almost symptomatic.

Dr. H. Lyon Smith, in *The Lancet* for November 5, 1910, says that he has found a combination of 1-8 grain of morphine hydrochloride and 10 grains of acid hydrochloride of quinine more efficacious in practice than either alkaloid used alone.

ARTIFICIAL ILLUMINATION

In an excellent little booklet issued by The American Association for the Conservation of Vision, an effort is made to disabuse people of the idea that this or that form of light is "hard" on the eyes. It is the way in which the light is used, not the source of it, which makes it good or bad. Bare gas-flame or electric lights should never be tolerated in any case. It is the dazzling effect on the visual organs of the uncovered light which makes it harmful.

Many people still use oil lamps, thinking that this light is easier on the eyes than others. It is easy because such lamps are always placed on tables and usually covered with shades, which completely hide the flame, also, of course, because their light is much less bright than the electric light. If an electric lamp or gas light is used in the same way, properly shaded, so that the light is well diffused, the illumination produced is not only just as easy on the eyes, but cannot be distinguished from that of the oil lamp. Exactly the same conditions apply to gas. The flame burner should be entirely discarded except in a few places where a light is only seldom required, since it flickers and blows and gives a wavering illumination.

When the modern mantle-burner is used, the quality of the light cannot be distinguished from the best electric light or that of the oil lamp. Whatever the form of light, a globe or shade should be used that entirely hides the luminous surface, those with light-yellow or green tint being the best. Blue gives a cold, ineffective illumination, while red is irritating to the nerves.



Nervous Dyspepsia

NERVOUS dyspepsia is frequently compatible, especially in neurasthenics, with a certain degree of good appetite, and yet at the same time the patient may experience the hyperesthetic symptoms from the solar plexus, such as digestive uneasiness, twinges, nausea, postprandial heaviness and flatulence, etc. Palpation of the epigastrium or even the simple pressure of the garments, as, e. g., the whalebones in a woman's corset, produces disagreeable sensations. A sense of fatigue and muscular inability, mental depression, an irritable state of somnolence are coupled with cephalic congestion and distressing palpitations after meals. These are some of the endowments of the nervous dyspeptic. He suffers at times from tachycardia with arrhythmia and an unstable circulation, he has spells of heat in the face and of cold feet and hands at the same time, or he may feel a tendency to fainting such as we observe in myocardites. Herz of Vienna insists on the frequency of spasmodic sighing, a sort of contraction of the diaphragm, a peculiar asthmatic dyspnea also, and dry cough coupled with an anxious sensation of thoracic constriction at the least emotion. These are the accompaniments of nervous dyspepsia. Let us say here at once that in these cases the granules of codeine or of heroin given dosimetrically, those of caffeine and of sparteine given before meals, keep off these reflex attacks, which are, perhaps pompously, described as functional cardiopathies."

The emotions of which we spoke act vividly the same as the least overexertion

or the least failure of diet: they stir up and exaggerate painful symptoms so much so that the patient loses after a while all force and courage, becomes unfit for work, restless, hypochondriac, emaciated, despairing, especially if the patient has insomnia, which is not rare in these cases. Some granules of monobromated camphor given in a little chloroform water overcome these evils ordinarily, and the insomnia, too, if the bowels are promptly emptied by an enema, for nothing is so inimical to a restorer of sleep as a visceral fulness at night.

The psychic character of the nervous dyspeptic becomes frequently distorted so as to make one doubt his mental sanity. This is because the excited great sympathetic produces various phobias, genital excitement, moral depressions coupled with ideas of impending death and other signs of insanity, special hereditary complications after some weeks of nightmares, hallucinations, insomnia not easily alleviated, which brings in its train a failure of will, judgment, attention, and memory.

Hydro- and electrotherapy judiciously applied now become valuable and often even indispensable to remedy the nervous derangements. These physical remedial agents equilibrate at the same time the gastric work, which Corvisart regards as an intuitional work, or, as Pawlow does, even as intellectual work; for the gastric glands and the smooth muscular fibers, regarded from the viewpoint of quantity and quality of the secreted juice and peristaltic function, enable the organism to go on and to provide for its nutrition. It is evident that a diet well appointed stands

first at all times as an important therapy. The fatigued stomach must first of all be put in relative rest. Every dyspepsia is, as Hayem says, if not an unsuspected gastritis, then at least a prolog and antechamber of said gastritis as a latent power.

Clinically, I must yet insist a little on the sensorial reflexes of nervous dyspepsia. The patients complain of ringing in the ears, of abnormal noises in the head comparable to jets of steam or the chirping of the grasshopper, coincident at times with some weakness of hearing. All these symptoms are evidently reflexes, since they become weaker and disappear ordinarily under the mere treatment of the culpable stomach. The distance-sight is what suffers most in these cases of bad digestion. The patients complain of *muscae volitantes*, of fog and mist before their eyes, etc., while no lesion can be detected ophthalmoscopically. Ocular migraine, with its pains, its luminous streaks and sparks and black spots, troubles of accommodation, sub-orbital and palpebral neuralgia, spells of lachrymation, and conjunctivitis, all these also are troubles of the sympathetic, engendered by digestive toxins. These are currently observed in the intellectual night-workers at artificial light.

This the physician has to stop first of all and must advise morning work instead. Then seidlitz enemas, strychnine granules, and Scotch douches (alternate hot and cold) frequently prevent the return of similar attacks. Against and during an attack itself, a dose of kenarol [a mixture of a decigram each of acetanidosalol, dimethylamidoanalgesin, and analgesin salicylate] in half a tumbler of water is of no value. It should be given in two-teaspoonful doses at the outset of the attack, then in one-teaspoonful doses two hours after, if the attack has not ceased. At the same time the patient with migraine should take a little menthol powder and make periorbital friction, with camphorated alcohol or tincture of jaborandi. In cases of asthenopia, Robin recommends the wearing of prismatic glasses with the thick edge downward. Whenever possible, intellectual work should be displaced by physical. A cure of the troubles will not be rapid nor

complete, especially in the young of either sex when they are the victims of school-examination anxieties.

When nervous dyspepsia threatens to perpetuate itself, it brings in its train the loss of tonicity of the gastric muscular fibers, with its consequent functional trouble, which was classified during the last quarter century under the clinical syndrome of dilatation. It is almost proven at the present that in most cases of gastroectasis it is nothing else than myasthenia, and dilatation is no longer considered as a morbid entity, even if the stomach empties itself badly and is enlarged in its dimension, undulates and splashes when fasting or some hours after eating. Motor insufficiency is enough to produce an overdistention of the stomach and to interfere seriously with the process of nutrition. This does not prevent, however, the nervous or even the moral factors, as, e. g., the depressive effects, mainly, from producing a subtonicity, especially if these factors act during a meal. The gastrosoph Brillat-Savarin said something like this: "A happy digestion depends at times less upon the talent of a Vatel [a noted teacher of the 17th century, in the house of the great Condé] than upon a good laugh at an Amphitryon [a comedy by Molière].

When there is nothing more than tympanites, with or without eructations but void of all painful paroxysms, it is enough to give a small teaspoonful of absorbing powder [a mixture of chalk, magnesium tribasic phosphate, bismuth benzoate, manganese dioxide, etc.] two or three hours after meals. Immediately before meals, two granules of strychnine and three of quassin. Every second morning a hot enema of chamomile infusion in addition to seidlitz Charles Chanteaud. If, in addition to this treatment, it is possible to give a hot sulphurous douche on the spine and an abdominal faradization, then one may well be sure to triumph over the gastric atony. When there are painful spells of distention, it is best to give, every fifteen minutes, one granule each of picrotoxin, veratrine, and cannabin, a combination which has the advantage of calming the pain without increasing the gastric atony, as

do the classic drops of morphine and cocaine. Dover's powder, thanks to the ipecac it contains, may also meet the requirements of an irritable gastric myasthenia.

When there is no fear of any pain, we may stimulate the hyposthenic digestion with a hot infusion of angelica root, given after each meal, with the addition of some stenol [a compound of caffeine and theobromine]. This will clear up the most troublesome phosphatic urine. To quiet the sensitiveness and contraction either of the cardia or pylorus, in case of dysphagia, we may prescribe 100 Grams of warm olive oil (3 ounces, about) flavored with anise oil, to be taken three-fourths of an hour before every meal. This I think superior to any stupefying remedy.—DR. E. MONIN, in *La Dosimetrie*, March, 1911, p. 39.

(To be Continued)

AGAINST PNEUMONIA IN OLD AGE

Oppenheim and Cropin (*Tribune Méd.*, 1910, p. 646) used oil of camphor, 20 percent, subcutaneously, in senile pneumonia, in large doses. They gave twice daily 5 Cc. (80 minims) injected under the skin of the abdomen. Unpleasant side-effects were not observed, in spite of the large doses. The breath had a decided odor of camphor. Sixteen persons were treated in this way, seven of whom succumbed to the disease. With one exception, a woman 76 years old, the ages of all the rest were above seventy.—*Wiener Medizin. Wochenschrift*.

COLCHICINE

A curious instance comes to us from Paris, of the slowness with which medical thought adapts itself to new ideas.

Robin, discussing the treatment of gout, expressed a preference for a French preparation made from the flowers of colchicum. His reason was that the quantity of colchicine contained in the seed varied from year to year. This was not the case with the flowers, and a tincture made from them had the advantage of constant composition and stability.

Strangely enough, it did not seem to occur to the great man that the easiest way of getting rid of this difficulty was to use the active principle itself, colchicine. This is the more remarkable, since in the same lecture he spoke favorably of the use of this principle. It is hard for men, when they have passed a certain age, to form new habits or get out of the ruts they have worn for themselves.

NITRITE POISONING CAUSED BY BISMUTH SUBNITRATE

A study was made recently of bismuth poisoning occasioned by bismuth subnitrate. The reduction of the nitrate to the nitrite is due to the agency of certain reducing bacteria, and that process takes place in the lower portion of the intestine. In certain postmortem examinations it was noticed with surprise that all the bismuth taken had passed the small intestine and accumulated in the colon.

The toxic symptoms occur after a latent period of some hours and then reach their acme in a short time in the shape of vomiting, great debility, diarrhea, cyanosis, methemoglobin in the blood, and these followed either by death or by complete recovery in a relatively short time. These experiences make it imperative to use in x-ray practice some bismuth combination which is slightly soluble and lacks the nitrate components.—*Berlin Klin. Wochenschr.*, in *Pharm. Centralh.*, 1910, p. 1070.

OBSTRUCTED DELIVERY

Dr. Prüssmann, in the *Münchener Medizinische Wochenschrift* (1910, p. 41), reports the case of a woman who, instead of a vagina, has only a narrow passage of the dimensions of a male urinary catheter, 7 1-2 inches in length, this canal opening on the left side. In place of the vulva there is a large cicatrix which extends up to the symphysis pubis. An excretory urethral duct is not to be seen anywhere. The urethra appears to open somewhere into the narrow canal above the cicatrix. The patient is 28 years old. She says that when she was six years old she was run over by a freight wagon and that one of its

wheels passed exactly between her thighs. She was sick in bed with fever for three months. There was no impediment to walking when she recovered. The urine and the menstrual discharge issued from the narrow opening mentioned. After five years of a sterile marriage she became pregnant, to her own and her husband's great astonishment, for regular coitus could, of course, never have taken place.

In view of the anatomical situation, it is evident that the spermatozoa must have passed the 7 1-2 inches long canal to the portio vaginalis uteri by their own power of motion. It is true that pregnancy is known to have taken place in case of an unperforated hymen, yet it can be assumed that in such cases the sperm was thrown mechanically into the upper part of the vagina.

Prüsmann followed the operation advised by Latzko. He made a pan-handle incision, then pushed the peritoneum by blunt dissection from the left toward the median line of the cervix, cut through the uterus sideward from the median line, and delivered a living boy weighing 5 4-5 pounds.

CONGENITAL LOCAL APLASIA OF THE THORAX-WALL

At a meeting of the Société Médicale des Hôpitaux, Drs. Apert and Buc presented a man whose left side of the chest was reduced to a double plane of skin of fibrous consistency. The third and fourth ribs together with their costal cartilages were missing in their anterior portions. The fifth rib was deflected downward and the second deflected upward. The grand pectoral was reduced to its clavicular and manubrial bundles. The small pectoral was wanting. The left nipple was half the size of the right one and deviated upward and inward.

We are confronted here by a malformation which has been observed in all degrees from the absence of the pectorals only up to the absence of all layers except that of the skin, with a subcutaneous hernia of the lung. In 25 percent of the cases there is also a lesion in the extremities, the fingers, on the same side. In some of these cases the hand is found in the place of the pectoral depression, a fact which permits of attributing the mal-

formation to a presence of the hand on that side during an early period of embryonic existence.—*Gaz. des Hôp.* 1910, p. 89.

FUNCTION OF THE OMENTUM

Charcoal suspended in physiologic salt solution and injected into dogs or guinea-pigs collects in the omentum. We can see microscopic heaps of phagocytes which have taken up these small foreign bodies. The same phenomena can be observed when injecting powdered magnetic iron ore, when its accumulation in the omentum can be observed radiographically in surviving animals. We can also demonstrate the absorptive action of the omentum on iron particles by observing, in a recently killed animal, how a magnet will not attract so readily iron particles which are scattered on the omentum as it does from an intestinal loop. Larger bodies also, such as glass beads, pieces of cork or of lead, when put into the peritoneum, become enmeshed and encapsulated by the omentum. Heavier particles, lead for instance, become detached after encapsulation, and with the piece of omentum about them are lodged anywhere in the abdominal cavity. The same process goes on in the case of the broad ligaments in the true pelvis.—F. and P. Heger, in *Gaz. Med. Belge*, through *Wien. Med. Woch.*, 1910, col. 51.

PANTOPON AND SCOPOLAMINE

Bruestlein of Berne (*The Lancet*) proposes pantopon and scopolamine as a substitute for the volatile anesthetics. Many patients were walked into the operating room in a semiconscious condition and then were operated upon without ether. Some required a little ether, though. The results described are those following the use of H-M-C.

BULLETINS ON NATIVE DRUG PLANTS

Those interested in American drugs should send to the Department of Agriculture, Bureau of Plant Industry, for Bulletins No. 107 and No. 189. The former describes a number of American crude drug-plants, giving plates by which they should be easily identified. The other treats of dioscorea.



Quackery Versus Scientific Medicine

ONE cannot help feeling surprised that so versatile a mind as Dr. Robinson's should be capable of showing such deep prejudice and allowing it to carry him so far as totally to ignore facts and demonstrated laws of mind and physiologic functionings.

Under the caption of "Scientific Medicine Versus Quackery," in a series of articles now running in *CLINICAL MEDICINE* (February and March), he makes some very good statements, yet spoils much that he says by his prejudiced and narrow attitude toward all that falls outside of the pale of so-called "regular" medicine; and his meaning is unmistakable, that the *summum bonum* of all knowledge lies solely in allopathy.

Inasmuch as it is contemplated putting out these lectures in pamphlet form, to be scattered broadcast over the land as the final word against all who dare to think otherwise, I shall take up *seriatim* the statements which violate common sense, and shall try to show the other side of the medal.

It is rather tiresome to hear iterated and reiterated the statement that there can be no knowledge medical save that acquired through one channel, and this in spite of the fact that the homeopaths and eclectics are obliged to study and pass state examinations on everything practised by the dominant school, save their contracted, unscientific materia medica and its therapeutic application. To be sure, Dr. Robinson covers himself by tacitly admitting in state-licensed physicians as treaters of disease, but this is so thin a

veil that no one can be fooled as to his meaning. Now as to my objections.

1. I differ with Dr. Robinson when he states that the accusation often made that the "regulars" are opposed to irregular practitioners for selfish reasons because they fear the competition and inroads on their practice; he says, it is as stupid as it is false. I say, it is in the main as true as it is sensible; and it is precisely those who have passed the stage of penury who want to organize a medical "paternity," ostensibly in aid of the "Dear Public," but in reality for selfish motives, for the acquisition of power, and for the purpose of founding a medical oligarchy the dictates of which shall be final—a beautiful outcropping of which we see in the American Medical Association.

2. We hear much, these days, about unity, and many are the urges that so-called school-lines be obliterated and that all those who attend different schools of medicine be amalgamated. To this end, not only are national assemblages called upon to advocate better and more friendly relations between the allopaths, homeopaths, and eclectics, but county societies have gone further and issued cards inviting all licensed practitioners to attend their meetings. This looks at first glance like the height of brotherly love. But wait a minute—all this is done by the dominant school. Now, should a brother homeopath or eclectic be so flattered as to attend those meetings, and in the bubbling love of new-found fellowship he should wish to reciprocate by pressing a similar invitation on the patronizing allopath to attend some homeo-

path or eclectic societies, how would he be met? A sunny, patronizing smile would flit over allo's face: "Thanks, awfully, but you know I am a busy man and I can hardly get time to attend the regular meetings." Not a face—not a face—of these "superior ducks" would ever gladden the doors of those beguiled simpletons belonging to the other schools.

Like that other orthodox, known as the Roman, we should be glad to have all Christendom united in the true faith, but, then, there is only one that is the true one—*ours*.

Now, I am sure for one, and I am equally confident that most homeopaths and eclectics will join me in the statement, that we should be very glad to have them join us, and we feel that they would be very good practitioners if they would only learn something of the practical use of medicine. It is just the idea, that "the truth is all ours," held by the dominant school, that has been the means of creating the Thomases, Tildens, Christian scientists, and all the rest.

3. I am surprised also to note that this journal advocates the issuing of this matter in pamphlet form, for I mind me that a man of iron will and energy plus to back it started a crusade against his groove-chasing apathetic allopath brethren to jar them into something besides opium, calomel, quinine, and iodine. This man's name is Abbott, and he launched alkalometry in America, and this man has done more than any other man in America to clear his school of the just charge of dry-rot. He didn't want them to get very far away either, just to give something that had something definite in view in the matter of curing disease and with some understanding of how to apply remedies to meet definite disease-conditions. A hunch, by the way, first put into practice by the eclectics, who in turn got their idea from the Thomsonians.

It is almost superfluous to add that this man was jumped on and called a heretic and honored with the cognomen that is always used by the orthodox to designate a progressive thinking man—"Quack." I have not forgotten the fight

of 1907-08, when this same A. M. A. frothed, fumed and raged against the H-M-C anesthetic and abuse of billingsgate variety was heaped upon the heads of this man and his solid brother, Waugh. I have in my possession a letter from one of these men, in reply to one I wrote, in which I suggested that, if the mossbacks did not stop their work, the public be appealed to. I do not remember the exact wording of this letter, but it was in effect that it might yet be necessary to reach laymen.

Right here let me say, the public can be relied upon to give the right verdict in the end, even if they make mistakes, and they need no paternalistic guardianship. Mr. Allopath, if you have a grain of sense, you can see that you have that verdict in the demand for progress, shown by the new methods of treating disease. Had you not been blinded by the belief that you were the last word, there would never have been Eddyism or any of the dozen other ilks. While Mrs. Eddy in the main was a faker, she has, just the same, been one of the Martin Luthers that opened the way out of four hundred years of Galenism.

4. Now let us see about that half-truth as to the "stupid public" being incompetent to judge whom it shall have as a medical adviser. For the sake of being more than fair, I will take Dr. Robinson's own illustration of appendicitis or peritonitis—diffused pain in the abdomen—and contrast what would be done by a grandson of a Thomsonian—the eclectic—with the practice of the four hundred-years-ago galenic—the allopath. Dr. Robinson, in this illustration, however, really has half reversed the proceedings; for if there is one thing the allopath is ever ready with, it is the "hypo"—to relieve pain, he uses it in season and out of season. (I am not including dosimetrists, for they are only halfbreeds.)

In comes Mr. Allopath with his "expectant" method and leaves his patient practically where he found him (with sad images of grave possibilities) and one day wasted, for many times the intelligent use of remedies will half cure a patient in that time; and I make no exaggerated statement in saying that I have known of cases

going on under such methods, wasting time to unearth a Latin name to apply to it, till the patient has gone beyond recovery—and I believe that in last year's CLINIC there appeared several articles on this same subject.

Comes Mr. Grandson of a Thomsonian. This man seldom uses his hypodermic, but he has a definite weapon that will hit pain in the belly ninety times out of one hundred; he pops a dose of dioscorea or some other indicated remedy, of which he has many, into his sick man; orders it repeated every fifteen minutes till the pain stops; orders a high enema; takes a sample of the urine and a blood-smear, to go on with his diagnosis; and tells his patient not to be alarmed. It is "dollars to doughnuts" that by the next day the patient is half cured, for we all know that 95 percent of all so-called cases of appendicitis are operated upon unnecessarily.

It is only two years ago that a German investigator in Berlin proved that in 1500 cases treated, 95 percent of the patients recovered under intelligent treatment, without operation, and I am quite sure that an account of his findings was published in this journal. Dr. Robinson will surely recognize this as "authority" for the rank and file of allopaths, as it is notorious that the great bulk of synthetic compounds and mixtures generally come to them from Germany; in fact, without the German stamp of approval, your orthodox looks askance at anything claiming recognition.

5. Here is a poser for CLINIC readers; yea, verily, doth it blur the eyes of the homeopath and eclectic quacks, for it showeth not the jewel of consistency as one of the editor's gems, if he advocates spreading such stuff broadcast through the land.

Listen: "To take one more example from pneumonia," says Dr. R., "some of you possibly know that pneumonia, when fully established, is what we call a self-limited disease; that is, it runs its course and cannot be cut short or interrupted by drugs or other methods of treatment." I will not finish the quotation, for he goes on to state that it ends itself by the seventh day, and how the other fellow is called in about this

time and he gets the credit of cure, and so on. Read it yourself.

I might add much that any intelligent thinker knows, but I forbear, as I am not trying to write a book on "Why the homeo-eclecto-osteo-chiro-Eddy came to exist." I just wish here to show you the inconsistency of CLINICAL MEDICINE in publishing such a pamphlet. *Helpful Hints* is filled with glowing accounts of how pneumonia and typhoid fever are being jugulated, and circulars without number have been issued, showing the merry war on this disease, redounding to the glory of dosimetry; and there have not been a dozen issues of this journal in the nine years I have taken it that such articles have not appeared from the pens of the editing staff, as well as from hundreds of physicians of repute from all parts of the country.

Far be it from me to belittle these circulars, pamphlets, etc., reports on dosimetry; for, as an eclectic, although a grandson of Thomsonism, I am also a staunch supporter of the good in active-principle therapy, as I believe it represents the first step away from orthodox allopathy; just as Eddyism has helped to open the eyes of Christendom to something better than hell-fire and brimstone.

6. What Dr. Robinson says of patent medicine and foods in the main is true; yet the glory of that conquest cannot be ascribed solely to the efforts of medical men, by the wildest flights of imagination, taking in all the recognized schools of medicine, for the very good reason that there are hundreds of workers who never saw the inside of a medical school, who have worked for these laws. In fact, most of the progress of moment to the lay public has not been due to medical largess; in truth, most of the discoveries have been due to men who never practised medicine at all, even down to the germ-theory. The progress of medicine, like its religious brother, has always been due to the knocks from the outside; for, be it said to their shame, when one of their number does have a thought aside from "authority," he is promptly jumped on and "quacked" or else excommunicated.

7. No, the practice of medicine is not like selling shoes, but the remedy to prevent people from employing a poor doctor does not lie in forcing them to get a particular brand, especially if that brand is harnessed to four-hundred-years-ago. What the people need is not someone to think for them—they have had all they will ever need of that, in the thousand years of darkness known as the "Dark Ages." What they need is a campaign of education—a bureau at the seat of government, that is empowered to spread literature and instruction, the same as the Agricultural Department is empowered to do in respect to animals.

Tell me, friend R., why is Dr. Lydston bringing suit against the A. M. A.? And let me ask you, if the heads of your own autocracy now make you feel their arrogance, what would occur should they have the power to dictate the policy of this whole country?

You know as well as I do that everything gained by the two opposing schools would be thrown out, *a la* baptisia, cactus—and perhaps the use of the H-M-C put forth by the halfbreed allopath, Abbott.

The reason the people have stopped buying their shoes of you so freely and are instead buying their medical shoes from homeopaths, eclectics, osteopaths, healers and Eddyites generally, is because they have found the shoddy in the old-school brand. Perhaps they have been blind in some instances, but even you must admit that they have escaped much calomel, opium, quinine, and bleeding, and have found a way to force something besides nihilism in medicine to the front; and let me say, had it not been for that stalwart halfbreed Abbott, your ranks would have been thinned many thousands more by desertions to the steadily advancing army of dissenters.

8. What we want and welcome is, not a paternalism that shall put into the hands of one school the power slowly to throttle all other schools, but laws that require all to study the human body and pass a fair examination before being allowed to treat disease. We do not, however, want this legislation for the reason that Dr.

Robinson ascribes, namely, "protection for the dear public."

Our reason for desiring such laws is that they will enable us to clear ourselves of the charges the "dear public" was given the right to make by orthodox medicine, through the determination of its adherents to continue salivating, bleeding, and indiscriminately dopping their hapless victims.

9. Statistics gathered from careful inquiry showed that more than 17,000,000 people in this country will not employ a medical doctor at all. Why? If the public are at fault in judging with regard to many disease-conditions (and I freely admit they are), it is because the medical profession have been recalcitrant to duty in not spending more energy in teaching them, and have left that to dissenters.

Half the effort to keep the medical doctor holding his "job" (yes, a small part of that \$40,000 recently raised for lobbying purposes in Congress, had it been spent in sending literature to the public to induce them to vote to add a department to the Agricultural Department at Washington, the work of which should be to gather data concerning the human biped) would have made plain the way for improving the public health without putting unnecessary power into anyone's hands.

10. Please bear in mind that of the Federal medical offices now filled, 7000 are by allopaths; that no homeopath or eclectic holds a position in the army or navy; and two dozen would probably cover all those of these two progressive schools now occupying positions in the municipal boards throughout the country. And this, not because they are not successful in curing disease, but because more of their time is devoted to their profession than to politics.

Had the movers in this last attempt been actuated by a broad fellowship, such as Dr. Robinson would have us believe, having the desire solely to further the interests of all the medical schools, we should have seen, not a coterie of men from the dominant school trying to get control, but instead, the matter would have been placed before each school, and an equal number been selected from them to work for the common good, thereby manifesting some

semblance of honesty of purpose, and an already suspicious public would not have beaten the measure.

Yet no unbiased thinker will believe that such legislation is at all necessary, any more than he would believe, on reading Dr. R.'s articles, that that gentleman had a warm place in his heart for the opposing schools, for never once has he said, "Our fellow workers, the homeopaths and eclectics."

My experience in regard to the public has been that the more intelligent I can make my patient, by educating him in all the details of his condition and even telling him what I am using as well as the object, the better patient he becomes, and also the more firmly he becomes attached to me—and during eighteen years of practice but very few have forsaken me for other doctors. Yet every journal under the management of medical men, intended for the public, so very carefully avoids giving out much information worth while, save the best way to get a physician, that they meet with the deserved contemptful neglect the public now accords.

11. "Are Drugs of No Value?" and, "We Are Not Drug Worshippers." Under these two captions, Dr. Robinson says much that is good, but I am glad that he mentioned Dr. Holmes, because it gives me the opportunity to say that Holmes was a true elder brother to Dr. Tilden of Denver, the renegade allopath who has an international reputation for curing disease. It enables me also to suggest that, if the good Dr. Robinson would like to read a good book that will enlighten him as to why the medical profession, allopathic, are justly treated with suspicion, let him get Osler's "Practice of Medicine." In all that book that great advocate of chloroform never names one disease in which any drug is a sure-shot.

12. Dr. Robinson takes a shot at "anti's" of all kinds. Perhaps, had he sat by the bedside of his own child, as I have, and watched the battle between life and death go on for weeks, because his little darling had been obliged to submit to having pus injected into her or else be refused education, and then, after nearly

giving his own life and seeing his wife nearly give her's in the effort to nurse the daughter back to life, and then had seen the mark of that paternal federal crime left blighten that young life, he might not be half so glib in his defense of all acts medical. And I do believe that then he would not cease cursing the authors of legislation compelling such practices. It is poor satisfaction to know that your little darling has been maimed "regularly"; and bitterly have many of us found that "we shall know better next time."

No, Dr. R., we are not drug-worshippers, but the reason we are not is, because outsiders—the "dear ignorant public", if you please, have compelled the use of electricity, light, diet, water, and mental therapeutics. And there is not a day when I am not thankful that the public had the good sense to kick and has made possible all the "ilks" and isms.

13. "Surgical operations." No one who will unprejudicedly look at both sides of this question will doubt for a moment but that surgery has earned all and more than it gets of the execration bestowed for the unnecessary butchering it has perpetrated on an unsuspecting public; and while I am, as all conscientious physicians should be, justly proud of the achievements of modern surgery, yet I am sure the "dear public" need more education against its abuses than for its uses, for they are not slow to appreciate the good results of any practice.

14. "Drug-dopers." Here Dr. R. gets in some good work. It is true that all methods of treatment are now brought into use, but if it had not been for outside pressure it would not be so. I remember how massage was fought by the medicos twenty years ago, psychotherapy denounced as a humbug, static electricity opposed, and water-cures ridiculed. Emerson said, "If you want to know what you are like, remember that each friend represents some phase of your character." Thus poor old hidebound allopathy may find "sectarian number one, two, three," etc., each like parts of a patchwork quilt represent a kick it has received as the indictment from an outraged public.

15. That the public have been given the right to make most of the charges here enumerated is clear to all, and, while it is true that the three schools do agree in many particulars, the two schools which have fought till recognized as a power are but a double reproach to the attempters of federal-allo-paternalism.

There is no reason on earth why the eclectic should not use any remedy, for that is what the name indicates—he was but a protest against the determination of the old school to hold him to four hundred years ago.

The close of Dr. R.'s article (in the February number), mentioning the great cheerfulness with which homeopaths and eclectics are received, is a "hot one." It deserves no comment from me. It stands alone, and one has only to read the last line to see clearly which way the frog would jump if we could but have federal paternal health.

In closing let me say (lest it be thought I am not competent to criticize things allopathic) that I was first graduated as an allopath; nearly died from tuberculosis under San Francisco's finest; cured myself by means of fasting, fresh air, exercise, and water; nursed three years under the best allopaths in San Francisco, San Diego, and Los Angeles, and that the men who employed me were leaders on this coast, and one of them was for four years first assistant under Dr. Osler, of Johns Hopkins. Never, in intimate private talks with these men, did I hear one of them express anything but absolute nihilism so far as medicine was concerned: they pinned their only hope for curing disease to surgery. I practised six years treating diseases by means of massage, water, air, electricity, light, and hypnotism. Once, after expressing my supreme contempt for medicine, a good eclectic friend took issue with me, and after reading some of their literature I decided to enter their school and to study their theory. I finally was graduated as an eclectic, and I have never regretted it, and I am also sure that many lives have been benefited through my efforts.

F. G. DE STONE.

San Francisco, Calif.

[Gee! But I do love a fighter. And this paper by Dr. De Stone is simply packed full of "scrap."]

Now, I do not know just what impression it has made upon your mind, dear reader, but to me it seems that the doctor has brought out just as strongly as he knew how all the weaknesses, mistakes, bad blood, and mutual recriminations that have characterized the discussions dividing the different wings of the medical profession during the last half century. Supposing a layman read this paper (as doubtless some will), would it increase his respect for Medicine? Would it turn him away from quackery, or toward it? Would it, in short, be a good thing to circulate among your patients and mine? I think not! The fact is that all the virtues of our profession, even the few (?) inherent in and appertaining to our despised "allopathy" (I wish the doctor wouldn't use that meaningless nickname), are so assiduously hidden that we should appear to be a miserable bunch of self-seeking, narrow-minded, intolerant and essentially ignorant money-grabbers.

And we know, that suggests something that isn't so. I am not going to try to paint here a panegyric of the medical profession, though I beg that God may give me eloquence to do the task worthily some of these days. But I am going to say that the medical men I know are not filled with the spirit of hatred or dislike, as between eclectic, homeopathist or regular—not in this town or any town I know. I fraternize with all, and know that I am right. Nor did I see in Dr. Robinson's paper any expression unfriendly in the slightest degree to our sectarian brethren. On the contrary, it pointed out the fact, whose truth most of us recognize, that we are constantly drawing closer and closer together, as we should. And as a means to this friendlier relationship, we believe that "Ravenswood" has played an important part.

We shall never agree in everything. How unfortunate it would be if we should! But we can be and we ought to be a unit in condemning dishonesty, in our profession and out of it, and in demanding for

the medical profession what no one seems very much inclined to give it in these days: a "square deal."

That's exactly what Robinson did in his great paper. That's why I like it, and that's why I want to see it placed in the hands of laymen. It's brave, it's strong, and essentially true. Yet, I don't agree with all he says, but, land of Goshen! if we printed in *CLINICAL MEDICINE* only the opinions that agreed with ours, to the word and letter, some of the best and spiciest articles would never see the light of day in these columns, and you might even have been denied the treat of reading Dr. De Stone's philippic.

How absurd it would be for us to refuse to print an article, or praise it, just because we did not agree with the author one very point, as for instance in the treatment of pneumonia. On this subject we can, on occasion, fight for our own, and all we ask is the chance. We have some drops of fighting blood left yet, besides a few friends who will help us, knowing, as we all do, what can be done to cut short the classical course of this ancient enemy. So we are not a particle disturbed if Dr. Robinson's opinions do not agree with ours even here. We'll set him right some day!

Now the question is, again, how many of the Robinson reprints do you want for distribution in your town? Price, \$2.00 a hundred.—Ed.]

THE CHILD-WELFARE EXHIBITS

The Child-Welfare Exhibit recently held in Chicago, with its sad, but also encouraging, illustrations of existing conditions, has come and gone, and we may well pause a moment to consider what lessons it taught us as physicians.

To this opening sentence it may be objected that at least the lessons of the health exhibit were not taught to, but were primarily taught by, physicians, that it was we as a profession who developed prophylaxis into a science, and that it is we who see our greater ulterior aim not so much in the cure as in the prevention of disease. While this may be true in a measure, much of the practical application

of prophylaxis and hygiene is not to be credited to physicians, but to social workers, especially to those noble men and women who have rallied around Jane Addams and have devoted their lives to settlement work.

That settlement work has accomplished much, that it has brightened many lives, has, directly or indirectly, saved many and restored a goodly number to health and to usefulness will not be denied. It is to the members of the settlement work, therefore, that most of the credit for whatever may have been accomplished is due.

The social problem, of which the child-welfare movement is an integral part, is a very complicated one and involves all classes of society, although it is most difficult of solution as regards the lower and lowest strata.

It has been suggested, and it is undoubtedly true, that the present state of social conditions is sadly like that prevailing during the decadence of the Roman Empire, and many are the Cassandras who have found in this similarity a text for gloomy prognostications. But while then as now the masses were miserably poor and ill-housed, subject to privations and diseases, while then as now the great wealth of the commonwealth was centralized and the substantial middle class had lost in backbone and in its sturdy honesty, through its mad striving to ape the wealthy, in those times no effort was made to remedy the ugly conditions. It was deemed sufficient, by the governing classes, to supply *panem et circenses*, and thus to quiet the clamor of the unfed and of the great masses.

We of today, however, have learned that a temporary forgetfulness, induced by whatever means, does not improve matters. We have learned that the only way is to attack the evil at its source and to change existing conditions if we wish to secure results and to save ourselves from an uprising of the submerged portions of society.

Unfortunately, this is more easily said than done. Not only the social, but also the commercial and in fact all present economic conditions are so complex and above all so closely bound down by property rights and personal privileges that their

betterment is all but impossible. Furthermore, while much has been accomplished in improving conditions in factories and workshops, the tenement problem has barely been touched, in spite of all the model tenements, the mothers' classes and district visitors; and it is, after all, the home life, or the absence of it, that determines the character of the people. Even if it were possible to make use of Nevo's expedient, or to repeat the experience of Paris in the early reign of the third Napoleon and our own experience in 1871, by burning down the tenement districts, they would soon after rebuilding be just as bad and just as congested as they are now.

The only way in which we can hope to secure an eventual improvement is by educating those who should be most vitally interested, by making them want the improvement, by teaching the tenement population. It has been said that these parts of our population, and more especially the degenerates and weaklings, the cripples and the sick, *et id omne genus*, supply the greatest contingent of the unfit of the race, which according to the inexorable law of nature must be weeded out and eliminated.

The idea has often occurred to the writer, especially in his dispensary work in different cities, that we as physicians set ourselves against nature, by attempting to save those who cannot be saved, in that we prolong the lives of the unfit to a time, perhaps, when they become capable of propagating their kind, leaving a family of unfit, of degenerates and weaklings to the charge of the commonwealth. And, yet, after all, these people are ill, and weak, and degenerate, not of themselves, not of necessity, but owing to conditions which are amenable to treatment.

It is here that the social-settlement work in all its different phases, and including such splendid efforts as those put forth by the Salvation Army and the Volunteers of America, has found its field, and it is here that the improvement must begin.

By being taught how to make the best of their conditions, the tenement people are insensibly taught how to improve their conditions, so far as lies in their power.

And of this lesson, once learned, there must inevitably spring a desire for a cleaner, better living, and a conscious effort to secure it. With the active cooperation of those whom we wish to benefit, it is manifestly possible to improve matters, and to change the important fatal factor of environment, which is now productive of so much harm, to one that eventually shall make for the betterment of the race.

If it is true that the highest birth-rate prevails among the poor and the poorest, the future of the race is unavoidably linked with the fate of these classes. The sooner we understand this thoroughly and act upon it, the greater and more energetic will be the efforts put forth toward an improvement of environment. That such effort, great and noble and helpful, has been made for years, we were more or less dimly conscious of in an impersonal sort of a way. How much can be accomplished, how much is indeed being accomplished right now, was beautifully illustrated in the Child-Welfare Exhibit.

If we are to begin at the beginning, it must be with the children. Improve their lot, teach them to do their own part in the general improvement, and future generations will reap the benefit of the seed sown today. The exhibit was a valuable object lesson and one that evidently was appreciated. All honor to those who devoted their time and their energies to make it possible.

H. J. ACHARD.

Chicago, Ill.

WARNING AGAINST THE EMPLOYMENT OF ALCOHOL

Being in my seventy-second year, and having been graduated from the Medical Department of Columbia University, New York, in the year 1864, I have passed a fairly long life as a doctor and witnessed many changes in the routine practice of medicine. At the time I was graduated, stimulation was but another name for whisky. "Rock and rye" was considered as the foundation treatment for tuberculosis.

Today it has been conclusively shown by clinical, laboratory and sociological evidence

that alcohol is not a food, but rather that it is a depressant, a poison (and an excitant), that it interferes with tissue metabolism, and, hence, favors the retention of toxins in the body.

Investigations in the laboratory and clinic of Dr. H. J. Berkley, of Johns Hopkins, on the action of alcohol have shown that it causes a fall of from 15 to 20 beats a minute in the heart's action, accompanied by some hardening of the quality of the pulse and followed by muscular latitude and mental confusion.

Prof. Winfield S. Hall of Northwestern University, says that alcohol produces a toxic effect on living substance. It makes the body more liable to other toxic influences. It cannot be considered as a food. It decreases the efficacy of muscle, glands, and nervous system. It seriously impairs fecundity, leading to race suicide.

It is claimed by some, because alcohol is found by investigators in muscle-tissue, that it is, therefore, a normal constituent of the same. Uric acid and carbon dioxide also are found in normal tissue, hence they too "must be normal constituents" (!). The fact is, they are all three the result of tissue metabolism, and if retained in the body are poisons.

Prof. H. W. Wiley of the Department of Agriculture characterizes alcohol as a poisonous substance.

Dr. H. J. Achard, in an essay on alcohol as a factor in the production and development of tuberculosis, cites full literary evidence that alcoholism is a serious predisposing factor for consumption. He cites Cornet to the effect that the ciliated epithelial cells are, by alcohol, temporarily weakened and paralyzed, so that one important defensive provision against the inhalation of tubercle bacilli is rendered inactive. Another harmful consequence he sees in the weakening of the heart-muscles.

Prof. S. A. Knopf says "that alcoholism is one of the greatest direct and indirect causes that prepare the field for the tubercle bacilli is now generally conceded, not only by physicians and sanitarians, but also by sociologists who have studied the question. It is not only a phthisiogenetic disease *par excellence* in adult life, but, according to

statistics carefully kept in European hospitals for scrofulous children, in more than 50 percent of the cases either the father or mother, or both, were found to be or to have been alcoholics. In a subsequent chapter we shall find these ideas justified by experiment."

Dr. Geo. W. Webster, of the Illinois State Board of Health, claims that the alcohol-problem is more important even than the tuberculosis problem, costing as it does the state far more and causing directly or indirectly even a greater percentage of all deaths than does tuberculosis.

Prof. W. T. Sedgwich has called upon the medical profession to stand for temperance as one great essential of public health, and Dr. Lewis D. Mason emphasizes the fact that inebriety is a fertile source of crime, pauperism, insanity and disease. At least four-fifths of the criminals and degenerates of a community may be traced to this cause alone. Facts go to demonstrate that it is an important factor as a cause of suicide, disease, accident, and adult-male deaths from accident, and either directly or indirectly explains the mortality statistics of our great centers of population, especially among the adult-male class, in excess of the normal death-rate in an ordinary sober community; and, finally, Dr. Howard A. Kelly is equally severe in his condemnation of alcohol.

The foregoing facts should prove to us definitely that alcohol is a dangerous medicine even for the purpose to which it has frequently been put, that is, as a stimulant. Moreover, in shock, syncope and heart failure we have cactin, digitalin, atropine, strophanthin. These active principles I have used the past fifteen years and found them superior to any supposed good of alcohol. Hence, we, as physicians, can find no field of use for alcohol in our practice.

Therefore let me solemnly adjure you, my brethren, as you regard your oath, subscribed at the time of your graduation, and with a full recognition of the responsibility that rests upon your shoulders as doctors and conservators of the public health and physical well-being, that you lend your strength and influence to put down and out this most pernicious and wrongful traffic in drink.

I trust that what is written will prompt physicians to be guided accordingly.

A. T. CUZNER.

Gilmore, Fla.

REFLEX ERUCTATIONS

A brief report of the two following rather unusual cases may be of practical interest and may be of help to some brother in the profession.

Some years ago an unmarried woman of about thirty came in to consult me. The woman could hardly speak ten consecutive words without being interrupted by most violent eructations, which, she told me, had been going on for several weeks, although she had been to several different doctors for relief from her "stomach" trouble. Her tongue was clean, bowels were regular, and the breath was not in the least offensive. I never heard such violent belching in all my life, and it continued without cessation except when she was asleep. It was clearly a reflex, and by a process of exclusion as well as from the presence of dysmenorrhea I diagnosed uterine irritation.

Upon examination I found a pinhole os. So I administered a little chloroform and forcibly dilated the cervix. When she recovered from the anesthetic the eructation had disappeared. I was doubtful whether the beneficial result would wear off with the effect of the chloroform; but it did not, nor did the trouble return until her next menstrual period, when she had a very slight attack. Three dilations all told cured the condition absolutely.

About a month ago Mrs. W. R., age 35, mother of seven children, came in with an exact duplication of the above-described condition. I got a history of five miscarriages, the last of which occurred five days after a heavy fall, in January. Ten days after the abortion occurred she got out of bed and was immediately taken with these violent eructations, which continued until she came to my office. She told the same story of indigestion, but added that she had no distress in her stomach at all, her appetite was good and bowels regular. She asked what I could do for her stomach, and I replied,

"Nothing; there is nothing the matter with your stomach."

I examined her womb and found it large, soft and flabby, with a cervix that looked exactly like a cauliflower, from the number of lacerations. On passing in a small blunt spoon-curet (there was no need of dilating that cervix), I found quite a lot of decidua, mucus, shreds and pus, which I removed easily and almost painlessly without an anesthetic. I swabbed the uterus well with ichthyol-glycerin, packed the patient into my car, took her home and put her to bed. Eructations stopped before she left the office, and she is perfectly well now, barring that she has been belching once or twice a day. I told her that the lacerations would have to be remedied, and to this she agreed.

HUGH JAMESON.

Titusville, Pa.

[You are right, Doctor, these cases are well worth reporting.—Ed.]

MERALGIA PARESTHETICA

I have under treatment a case of meralgia paresthetica which may be of some interest to you. The patient, Mrs. B., aged 51, is strong, well nourished, with family history good, her health perfect until five years ago, when she began to be troubled with constipation and an abnormal sensation of the parts supplied by the external cutaneous branch of the femoral nerve, there being numbness, stabbing pains, excessive tenderness, which finally became unendurable.

In August, 1909, she came to me for treatment. I thoroughly cleaned out the bowels with calomel, podophyllin and bilein followed by a laxative saline and a high enema of kerosene, one pint. I kept the bowels clean with the saline laxative, anti-constipation granules and intestinal antiseptics; I also removed the hemorrhoids. For improving the condition of the kidneys, I gave her a formin compound. I tested the urine twice a week and kept it near normal, sometimes slightly alkaline. Its specific gravity and the solids were normal; no indican.

The arsenates of iron, quinine and strychnine, and nuclein, also lecithin, were given

for two weeks, alternately with zinc phosphide for one week. Atropine, zinc valerate, and local applications were used to relieve the pain. I intended to try to hasten the matter with crotalin, but after my experience with a former case I concluded to wait.

At the present writing the pain and numbness have entirely disappeared and the parts seem normal, except that after a long walk there is felt a tingling sensation along the nerve.

—, Illinois.

E. R. C.

[As to crotalin, it should not be forgotten that Dr. Mays is now recommending the use of much smaller doses, i. e., 1-400 of a grain. The doctor's treatment of this case of meralgia was most excellent, and he has demonstrated once more that the right remedies for the pathologic conditions present in the individual pushed to effect invariably produce results.—ED.]

AN OBSTETRIC FIGHT IN THE PHILIPPINES

The experience I wish to relate happened in the Philippines some years ago. One of my patients was expecting to be confined soon. I had delivered the lady before, when she had an easy time. I was watching the case carefully and giving preparatory treatment. For all of these reasons I was expecting no trouble.

I was called one morning, and was told that the bag of water had burst, but there were no labor-pains. (The patient had been getting caulophyllin.) Now, brother, what would you have done in such a situation? Well, I had no consultant, and my own unaided wits failed to produce any reason for immediate interference; but I did see an unusually fine opportunity for an accurate examination, and I made the most of it.

The patient had no superfluous adipose tissue; a flaccid uterus was collapsed around the fetus; a softening os would not quite admit the finger. I never heard the fetal heart so plainly. The absence of amniotic fluid and the flaccid condition of the uterus and abdominal walls made the outline of

the fetus apparent even to the eye. I took plenty of time and made all examinations carefully and repeatedly. I do not see how I could have been mistaken in my diagnosis. It was a vertex presentation, L O A position. The head was, apparently, firmly engaged in the superior strait. Everything lovely, but no pains. What would you have done next, brother doctor? I went home and left the case to nature.

The next call came about thirty-six hours later. And here is where I made my mistake. I should have provided myself with a full set of instruments, chloroform, and an assistant; but I was so sure that I should have no use for any of these accessories that I neglected to do so.

At the house I found the patient walking about, making preparations. She said that the game had been opened by a period of violent activity on the part of the fetus, lasting about twenty minutes. (I saw this fetus, on a former occasion, push out the abdominal wall a full hand's breadth.) Pains were strong, lasting about a minute, and coming on at intervals of about ten minutes.

As I was crossing the room I noticed something dark on the floor. Stooping to examine it, I found meconium! Sure enough, it proved to be a breech presentation. The uterus was now firmly contracted about the fetus. Version was impossible without previous chloroform anesthesia and instrumental dilation.

Now I found that, owing to an unavoidable concatenation of circumstances, I was alone in the house with the patient, except for a two-year-old boy asleep in the next room. It was ten o'clock at night; the rural town was fast asleep, and there were no neighbors within call. As I did not dare to leave the woman, I planned to delay expulsion as long as possible, and then deliver rapidly when dilation should be complete. At midnight I injected half of an H-M-C tablet, and at one o'clock, the other half. The patient slept the rest of the night, but woke up about half past five and aided vigorously in the delivery.

When I started to deliver, I noticed that the temperature of the fetus was the same as that of the mother. Then I found the

cord ribbon-like and pulseless. As soon as I could I brought down one foot and then the other. The cord was found drawn tight around the neck. A minute's pause, and the head was delivered. The whole process could not have taken more than fifteen minutes. I tried all possible means of resuscitation, to satisfy the mother, but the baby stayed dead. The mother suffered no lacerations, and made a rapid and uneventful recovery.

Now I want to know what killed that child. Is it possible to suppose that he turned a summersault in the womb, and hung himself with his own too short cord? Oh! I forgot. I used H-M-C. That is what did it, of course!

CHAS. F. MORRISON.

Klamath Agency, Ore.

[Of course! That's the usual style of reasoning. But who will volunteer to answer the question?—ED.]

HEMORRHAGIC MALARIAL FEVER, OR YELLOW-CHILLS, OR BLACK-WATER

I have read with interest the article of Dr. Soloman on black-water fever in Costa Rica (page 321). The same disease is prevalent in the western section of Alabama, although called by a different name, being known among physicians here as hemorrhagic malarial fever. By the laity it is commonly called "yellow-chills," from the saffron- or lemon-color of the skin, which resembles very much that of yellow-fever. I have had considerable experience with this disease—had two attacks myself.

Hemorrhagic malarial fever is one of the most fatal diseases with which we have to contend. It is found only in intensely malarial districts or among those who have been exposed to malarial influences, in consequence of which it is considered a malarial infection, while from its always being ushered in with hemorrhage from the kidneys, it is called "hemorrhagic malarial fever."

There is one peculiarity about this disease that I have not seen stated elsewhere, namely, that the negroes here have been

found to be peculiarly exempt from it, although the blacks outnumber the white population in our county (Sumter) five to one, and are generally more subject to malarial attacks (due, I suppose, to their greater exposure to the mosquito), yet I have never seen a single case of hemorrhagic malarial fever in a negro.

I shall not now enter into the pathologic anatomy of this disease; suffice it to say that it is on the decrease in our county since we have learned to screen our houses from the mosquitoes.

As to the treatment, I fully agree with Dr. Soloman in everything he says in that respect. However, he strikes the keynote when he condemns the use of quinine, though some of our Alabama doctors still persist in using it. As he points out, "quinine irritates the kidneys and only gives that already overburdened organ more work to do to eliminate the drug." Furthermore, the agent is not indicated.

Microscopic investigation has demonstrated that the chill which ushers in the disease causes a disintegration of the red blood-corpuscles and the destruction of the malarial parasite, so that we have a toxemic condition to contend with, the treatment for which condition may be summed up in four words: Elimination—prompt, quick, heroic.

The great danger in this disease, as Dr. Soloman has truly said, is suppression of urine by the blocking up of the uriniferous tubules, and unless we can prevent this by vigorous elimination, uremic intoxication will be the result, ending in death in twenty-four hours.

My method of treatment is as follows: Give 20 grains of calomel at once, followed by magnesium sulphate, 1 ounce, and repeated every two hours till effect. Keep the patient well under blankets; apply hot-water-bottles to the loins and along the spine till he is bathed in a profuse perspiration, then sponge him with warm diluted alcohol and wipe him off with a warm dry towel. See that the elimination is faithfully kept up, and in thirty-six or forty-eight hours the urine will be free from blood and the patient will be practically safe, except being very much debilitated.

To combat heart failure, I give strychnine and sparteine, alternately every four to six hours, as indicated. In extreme cases, I give high enemas of normal salt solution every three hours, or else hypodermoclyses. Good nourishing diet (buttermilk is best), and some one of the reconstructive tonics will complete the cure. I have been uniformly successful with this treatment, which is along the line pursued by Dr. Soloman.

I would advise those who have never had any experience in the treatment of this terrible malady to read Dr. Soloman's article carefully and follow his treatment faithfully, and they will not regret it.

D. S. BROCKWAY.

Livingston, Ala.

FEEDING THE TUBERCULOUS

For some time past the idea that the tuberculous patient should be "scientifically stuffed" has had a great vogue and a wide acceptance, but I am glad to see that the pendulum is beginning to swing back toward what I believe to be the rational position on this question.

In my earlier years of practice I "stuffed" my tuberculous patients, and had the sorrow and chagrin of seeing the appetite fail altogether, and in some cases the digestion become so deranged that it took a long time to get it back to a normal condition.

Regarding fats, I believe that those which are acceptable to the patient are a valuable addition to the diet. I always advise that butter and cream be taken as freely as may be without satiety, and if olive oil is agreeable, I encourage its use. The petroleum emulsions are well borne by some patients, and I have felt that at times I have seen benefit from their use. As to codliver oil, I have rarely had a patient who could take it for any length of time, even in the most "palatable" preparations, without developing a disgust for it that often extended to all other foods as well. The "wines of codliver oil," which are said to contain "all of the oil except the grease," I consider to be largely a bait for suckers; for what under heaven do we give the oil for if not for the "grease?"

My advice to my tuberculous patients regarding their diet is: "Eat all the nourishing food that your appetite calls for, taking care not to clutter up your insides with knick-knacks so that there will be no room for the substantial things. Eat at your regular meal times and at no other times unless your appetite calls for food between meals, and then take something easily digested and nutritious (a raw egg in milk, for instance). Keep a record of everything you eat and how much, and bring or send it to me as often as once a week, so that I can keep tab on you."

As the treatment progresses in its various phases, including the cleaning out and disinfection of the alimentary canal, I find that the appetite increases, and when that occurs, the diet is always increased to meet it.

The more I study and observe and consider the matter, the less philosophy can I see in violating such well-reconized physiological laws as those regarding the necessity of rest for the stomach between the regular meals, convinced that surplus food, taken with the hope of increasing bodily vitality and resistance thereby, becomes a poison to the body.

GEORGE B. LAKE.

Wolcottville, Ind.

[We are glad indeed to see that the idiocy, nay, the criminality of indiscriminate stuffing in tuberculosis is becoming more and more apparent to the minds of practising physicians. The only thing that astonishes us is that it has not become apparent long ago. The utter want of scientific and common-sense foundation of the principle of forced feeding should have given it its quietus long ago. It is not what the patient crowds into his stomach but what he assimilates that is of benefit to him. Recent investigations and clinical experiments have shown that the excessive proteid diet which is praised so much by many is harmful rather than beneficial, especially because it is liable to set up autointoxication: because the enfeebled body-chemism is incapable of assuring an efficient elimination. It has been satisfactorily shown that tuberculous patients

are much more apt to do well on carbohydrates and fats than on proteids, and that the latter need be given in only very small amounts. Speed the day when the poor consumptive patients shall no longer be subjected to this inhuman stuffing process, and when their digestive organs may get a chance to recover from their previous strain.—ED.]

A DIAGNOSTIC SIGN OF TUBERCULOSIS

In *The Journal of the American Medical Association*, C. L. Wheaton calls attention to a new sign which may be of diagnostic value in pulmonary tuberculosis. In these cases, when the skin was pulled away from the fascia over the affected area, it was freely movable, and not adherent to the muscle-fascia. This was especially noticed in cases of early unilateral involvement, and proved to be so only on the side affected by tuberculosis. It was more pronounced over the original area of infiltration. Occurring on both sides, it indicated bilateral involvement. On the affected side the skin could be drawn from the chest-wall with ease, as compared with the other side. The skin was also thinner than that upon the sound side.

THE CARELESS ADMINISTRATION OF ANESTHETICS

Chloroforming is an art. To hand the chloroform-bottle to any Tom, Dick, or Harry, has been disastrous many times. It is time enough when the emergency arises and we have to employ an unskilled hand; but, alas! how often do we see it done without the least necessity. Office girls, some relative, an accidental visitor, or a patient who just happens to be in the office, all such are sometimes recruited for the giving of an anesthetic. If the patient only "goes to sleep," that is sufficient.

But what do these folks know about the consequences, about too much or too little, about the contraction of pupils, about the rhythmic breathing, the retraction of a tongue, and all that? Can they watch the pulse? Can they differentiate between a cantering and a pendulum rhythm? Can

they judge about the right time to give a hypodermic injection? Can they recognize danger signs?

But it is not so much about the layman's knowledge I want to speak. I want to state that I have witnessed, many times, the giving of an anesthetic by professionals, without any precaution whatever. I have found out that in some instances chloroform has been given which was decomposed—chloroform which was kept in colorless bottles exposed to rays of light. I have seen the chloroform administered to a patient sitting upright in a dental chair when he was being operated upon for nasal polypus.

If a real anesthetist knows his duty, does his duty, nobody needs to die of an anesthetic.

D. ZWIGHTMAN.

Niles, Mich.

DO IT NOW

When I cash in, and this poor race is run,
My chores performed, and all my errands done,
I know that folks who mock my efforts here
Will weeping bend above my lowly bier—
And bring large garlands worth three bucks a throw,
And paw the ground in an ecstasy of woe—
And friends will wear crepe bow-knots on their tiles,
While I look down (or up) a million miles,
And wonder why those people never knew
How smooth I was before my spirit flew.

When I cash in, I shall not care a yen
For all the praise that's heaped upon me then.
Serene and silent in my handsome box,
I shall not heed the praises or the knocks;
And all the pomp and all the vain display
Will just be fuss and feathers thrown away.
So, tell me now, while I am on the earth,
Your estimate of my surprising worth—
Oh, tell me what a candy kid I am,
And fill me full of taffy and of jam,
Spread it on good, like honey's spread on bread—
Don't wait to shoot the bunk till I am dead.

—WALT MASON.

FOREIGN BODIES IN THE ESOPHAGUS AND TRACHEA.—ATROPINE

What to me was a new method of removing a fish bone which was lodged in the esophagus was a hypodermatic dose of 1-10 grain of apomorphine (green!). The answer came in less than three minutes—and a search of the vomitus revealed a codfish bone one and one-half inches long. It was puncturing the wall of the esophagus, as evidenced by some hemorrhage, and the use of an umbrella-probang would have

made a bad matter worse. Some depression followed the action of the emetic, but it was not much more than the natural reaction following the excitement and was remedied by a dose of strychnine. It was a very natural thing to think of this employment of apomorphine, using horse sense and general principles.

Foreign bodies in the trachea or bronchial tubes are not of frequent occurrence, but I have had two cases within the last few years, which comprise all coming under my care or notice during a practice of thirty-four years.

The first case was that of my own grandson, two years old. He was given or got hold of some roasted coffee beans, and inhaled one. The strangulating effect was very severe for a few hours, and paroxysms of coughing came on less frequently for a week. The obstruction would seemingly float up to the larynx during the coughing fit and settle down again to what seemed the bifurcation of the trachea, as evidenced by auscultation.

My advisers all seemed to think the child could cough up the coffee bean if he inhaled it, until I consulted Dr. Oldham, of Wichita, who suggested immediate operation, which I permitted him to perform.

The operation was, apparently, a failure until the surgeon was preparing to arrange closure of the wound, when the patient began struggling for breath, and the coffee bean popped out of the wound to the height of two feet. A good recovery followed. Unfortunately, an attack of pneumonia, followed by measles, was too much for the vitality of the little hero. I have thought infection may have occurred before operation.

The other case was that of a little 3-year-old girl. She was playing in the corn-bin when a grain of corn was inhaled, as we supposed, although the obstruction to the respiration was not very severe. Operation was decided upon, and was done the second day, all the surgical talent of Wichita being present, and they examined the patient by auscultation. Operation was recommended by all, including a visiting scientist from Berlin. The result of the operation was complete relief of the dyspnea, but no foreign body was ever found. What was it? A

soluble substance? or was it inhaled deep into the lungs?

In my recent sickness, atropine has been of great service as a respiratory stimulant. Combined with strychnine, which is also in that class, the cardiac asthma or dyspnea in edema and in various other conditions is relieved in a specific and rapid manner by atropine.

To relieve "air-hunger," it is only necessary to give a small dose, 1-200 grain of atropine and if the desiccating effect is counteracted by pilocarpine, as it can be, we have a combination excelled only by H-M-C. The strychnine becomes more necessary if pilocarpine is used.

A. J. McADAMS.

Harper, Kan.

HINTS FOR OBSTETRIC WORK

First and foremost in the work of the general practitioner is obstetrics. It is not the most agreeable part of his practice (except to a few), but it is the one thing which will get and hold more business than anything else, because, "If you please the ladies and the babies, your fame will stand through ages."

When the obstetric call comes, "get there quick." The woman appreciates it, and, then, if there be a wrong presentation you can the better correct it. Be kind and sympathetic, the woman needs it and expects it, and it is the best kind of a "business getter." When the pains get aggravating and the woman restless give her a half tablet of H-M-C with the needle, and she will quiet down, rest between pains and bless you for the relief. Repeat in one or two hours, as needed, and when the head has passed the arch give her a few whiffs of chloroform. When it is all over she will say she has had the easiest labor she ever passed through.

Just a word of caution here: *Do not neglect the woman immediately after the child is born and the placenta delivered.* This is a critical time and she should be watched carefully. If pulse is above 90, be on the lookout for a bad hemorrhage, because it will usually occur; I always have my fountain-syringe full of hot lysol solution

and ready for instant use; then if a hemorrhage starts I give an intrauterine douche with this just as hot as she can stand, in fact a little hotter than she *thinks* she can stand; then vigorous massage over the uterus with ice-cold compresses, this of course when the bleeding is *not* due to a lacerated cervix. When the cervix is lacerated I pack with iodoform gauze and omit the massage.

If you are careful and do not get in too big a hurry there is very little danger of having a perineal laceration, but should there be one, repair it as soon as the placenta is delivered. In my ten years of practice I have only had two perineal lacerations. These were repaired at once, with good results.

In conclusion let me say, *do not get rattled*, no matter what the nature of the trouble, especially in the obstetric chamber. Keep cool, use your brain, keep the attendants busy and thus out of the way, and let them know quietly but firmly that you are "on the job." By doing this you do not alarm the patient and can handle the case much more satisfactorily.

Union, Ore.

C. H. LAW.

THE THREE FORMS OF SUNSTROKE

The following suggestive editorial is quoted approvingly from *American Medicine* for June, last year.

The three forms of sunstroke are very much misunderstood by physicians, even in the tropics, and curative means are often misapplied.

The form with high fever and more or less profound coma is now known to be due to heat alone and should be called "heat-stroke" or "thermic fever," for it often occurs in hot-fire rooms or at night. Moreover, negroes suffer from it unduly if they are exposed to a high degree of external heat which their black skins absorb so easily. In their natural state, they are rarely, if ever, exposed to temperatures of over 95° or 100° F., and in a fire-room of 150 degrees' temperature they suffer more than do white men.

The second form, that of "heat-cramps," now worrying the naval surgeons, seems to

be solely due to withdrawal of body-fluids by excessive perspiration which has not been replaced by frequent drinking of copious draughts of water. It is often miraculously cured by intravenous injections of saline solutions, or by high enemata if the patient is not too far gone to absorb through his mucous membranes.

The third form of collapse, with little or no rise of temperature or loss of consciousness and which is generally labeled "heat-exhaustion," is gradually being recognized by tropical experts as due to the effects of light. It is often seen in places and seasons when heat-stroke does not occur. Its prevention is merely a matter of avoiding exposure to excessive light, irrespective of what is done to avoid overheating. The puzzling cases are those with a mixture of all three conditions, for sunstrokes are of every conceivable grade between these three forms if the patient has been exposed both to heat and light and has suffered from excessive perspiration without the use of plenty of drinking water.

The prevention of all forms of heat and light sunstroke is so simple and rational that it is more than amazing to find wrong advice given by those who should have kept up with the investigations of the last few years. A recent textbook actually advises abstinence from drinking water in conditions of great heat, when everyone knows that it must be taken to replace perspiration, whose evaporation carries off surplus heat. Abstinence also prevents proper elimination through the kidneys, brings on numerous symptoms of toxemia, and the highly concentrated urine has been known to cause inflammation of the whole urinary tract. As soon as perspiration is checked by increased specific gravity of the blood, the body-temperature at once rises to a dangerous point. Then there are the sunshine-cranks who advise people to expose the naked body to the midday summer sun, and who do not seem to realize that they are thus causing more or less prostration.

It is high time that American physicians learn these lessons and prevent the attacks which are so numerous every summer in and out of the cities. If cool, shady places

cannot be found and one must expose himself to heat and light, let him avoid overexertion if he can, provide himself with opaque clothing for its shade, and drink sufficient water to keep up a copious perspiration and free flow of urine.

DIETETIC INTEMPERANCE IN "TEMPERATE" PEOPLE

There is a nostrum element strongly in evidence in alcoholophobia, tobacco-phobia, theinophobia, and allied obsessions which reduces all etiology and all therapy to a single element. The "falsehood of extremes" is peculiarly evident here and prevents proper remedies in degeneracy, morbidity, and sociology. The error of the old Pharisees, who made long prayers and devoured widows' houses, and berated Christ as a friend of wine-bibbers, crops up in the mendacious statistics which charge everything deleterious to alcohol, tobacco, tea or coffee, and ignore gluttony. Discussing this question, Seymour Taylor, in the December 28, 1910, *CLINICAL JOURNAL* remarks:

"Many cases of hemorrhagic hemiplegia occur in men and women who have been most careful as regards alcohol. The so-called learned professions—the church, the bar, and medicine—easily furnish us with many names of eminent men who have died from hemiplegia, and, yet, who have led almost abstemious lives, at least so far as alcohol is concerned. They have led strenuous lives spent in mental work, and their cerebral vessels have not been able to bear the strain. On the other hand, I have seen a goodly number of hemiplegias in teetotallers. There is as much danger in the knife and fork as in the wineglass, and total abstainers, as a class, eat more than moderate drinkers.

This is the sort of daily life which many men belonging to the class wrongly termed abstainers lead, at least so far as their gastronomic exercises are concerned. A man of this class has an uncommonly good appetite, for which he is duly thankful, and at the same time unduly proud of. He consumes, for breakfast, ham, eggs, and perhaps a chop, or some cold viand; he likes

a lunch consisting of at least two "meat" courses; at dinner he indulges in good soup, followed by fish, poultry or game, butcher's meat, and sweets. Probably at least two of these meals, and sometimes between, he imbibes a large quantity of that very nasty and by no means harmless concoction called cocoa, and toward the end of the day he may pat his comfortable parietes and thank God "that he is not as other men."

A paralytic stroke will overtake that man as soon as, nay, sooner than, it will a man who does not wear a ribbon, but who has enjoyed the good things of this world in moderation and is thankful for them. If overeating produced half the visible effects on our legs or made our speech anything like as thick as does alcohol, how many would escape the frequent attentions of the police and appearances before the magistrate's court? Intemperance, therefore, is by no means limited to alcohol.

The truth of this is peculiarly well illustrated in the life of Henry Harland (Sidney Saska), the novelist: "Take," remarks J. R. Meader in the February *Business Magazine*, "Henry Harland, whose life was snuffed out a few years ago in payment for a debt which he owed outraged nature. When a young man and struggling for recognition, he worked all day at desk in one of the municipal offices, depriving himself of all but four hours' sleep, that he might spend the night perfecting that almost inimitable studies of Ghetto life that he printed under the pseudonym of 'Sidney Lusk'.

"To some degree Henry Harland won the fame that he desired. At least he succeeded in writing two or three novels that numbered among the 'best sellers' and that made his name known wherever English fiction was read. Before he had fairly had time to enjoy this success, however, and while he was still scarcely more than a youth, death came suddenly. The physicians agreed that it was due solely to the fact that he had undermined his constitution by loss of sleep.

"In the ordinary sense of the word, Henry Harland was a temperate man. He neither drank nor smoked to excess, yet his intemperance, while pursued in a differ-

ent direction, weakened his body to the point of dissolution. He paid for his success with his life, and it is an exorbitant price to pay. If he had slept a little longer he would have lived longer. He might have been a little older when fame finally smiled upon him. The big checks from the publishers might have been delayed for a year or two, but the man would have lived to enjoy them. The brain, unwearied, would have produced still greater works, and the success which came at last might have been that undying fame that is so different from the little brief applause for which so many men and women seem willing to lay down their lives." JAS. G. KIERNAN.

Chicago, Ill.

WHISKY AS A LIFE SAVER.— SUNSTROKE

I have read so many articles, in your valuable journal, about the useless administration of whisky for snake bite, with the assertion that whisky is a depressant, that I am constrained to say a word.

The primary action of whisky is a stimulant to the heart and a dilator of the capillaries. Therefore it is *the* remedy for the four following pathological conditions, at least:

The poison of snake bite depresses the heart so much that the victim complains of the sensation of gripping of the same as by the hand or a vise, and enough whisky to counteract this effect gives relief at once and will save more lives than all other medication.

In heat-stroke or sunstroke, the capillaries are contracted, the skin is pale, and the internal blood-vessels are engorged. Whisky is the remedy, because it stimulates the heart and dilates the capillaries, and is worth more than all other drugs.

When a person has been exposed to a cold, marrow-piercing wet wind until he is shaking and is chilled through and through and has gooseflesh skin—then whisky is the remedy unless he has access to a hot bath.

In low forms of pneumonia or typhoid fever, small doses of whisky given at regular intervals will tide the patient over a crisis a little better than any other drug.

Don't think that I am a "booze fighter", for I never was drunk and I vote "dry" every chance I have, but I am writing now of whisky as a medicinal agent, not as a beverage.

Also, I noticed a lengthy article on dietetics, and I cannot resist the temptation to say that the Battle Creek Sanitarium idea of dietetics is so far ahead of all other that every physician ought to visit that institution and get the idea. But as they all cannot conveniently visit the place, it would be a great help if Dr. Kellogg would write an article, each month, for THE AMERICAN JOURNAL OF CLINICAL MEDICINE, on dietetics. T. F. P.

—, Washington.

[We are always glad to hear from the other side—even of the whisky question. Nothing gives our journal more interest and value than the discussions which we are able to elicit. *We want both sides*—and we want our readers to fight for their opinions. We are frank to say that we often disagree with those who contribute to our pages, as we do in this very case, for in our opinion there is rarely a condition that cannot be combated better by other remedies than it can by alcohol. There may be and doubtless are occasional indications for its use; but that it is used too much, even medicinally, I do not believe even Dr. P. will deny.]

I want to put in a word of warning against the use of whisky in sunstroke. In the cases of heat *exhaustion*, with pallor of the skin and signs of shock, to which the doctor refers, it may be given with advantage (though the triad of glonoin, atropine and strychnine arsenate is much better), but it should *not* be given in thermic fever, with flushed face, congested brain and high temperature.

By the way, what will our readers tell us about sunstroke? It's time to be prepared.—ED.]

PERMANENCY OF THE GRANULES

I am very much pleased with the helpful information I receive from CLINICAL MEDICINE, and I also like the alkaloidal med.

icines. In fact, I received from Dr. Silva, (who, with Dr. Thackeray, first made them in Chicago) some metric granules when they were in their infancy, in 1884, and I have carried a case of the granules in my pocket ever since. I use medicine in other forms, but rely on the alkaloidal granules.

ROZEL M. CURTISS.

Marengo, Ill.

[We have in our office some alkaloidal granules made about twenty-two years ago. These granules, and the case containing them, have traveled thousands of miles, have visited Central America, crossed the Atlantic several times, and yet they are just as potent, so far as we can determine, as they were the day they were made. Could any preparation of the galenics stand a test alike this? What do you think?—ED.]

MERCURY FOR PITIRIASIS

In the following I send you a translation of an article by Dr. Reinald Fred Geyer of Rio de Fanciro, Brazil, appearing in the *Voço de Kuracistoj* about the cure of pityriasis versicolor by the use of quick-silver.

"It is well known that the skin parasite of pityriasis, the microsporon purpur, although easily removable from the skin by a simple fatty inunction or by rubbing with a brush, in spite of its sensitiveness to almost all antiseptics, strongly resists any kind of cure, because it penetrates deeply into the tubules of the sweat-glands and at once grows again, covering the skin with thousands of small round squamæ, even after the application of tincture of iodine and the strongest caustics.

"During twelve years, myself a sufferer, I had sufficient time to observe the ineffectiveness of a great number of topical applications. The parasite by and by took possession of my breast, dorsum, arms, and here and there started a colony upon the abdomen, the forearms, the throat, etc. When such a small colony had established itself visibly on any part, I scratched it off and penciled the place with concentrated phenol solution, which was a very effective but not generally useful remedy.

"Lastly, having lost all hope, I limited my efforts to patiently waiting to see whether the malady would disappear with age or with the patient himself, because this parasite has never been observed after a certain age.

"I had made the observation that the microsporon every time grew beautifully when my health failed, and that it dried up, became thinner, as it were, when I became better. I could not but think of a relation between this mycosis and tuberculosis. But, besides these oscillations and in spite of everything, the parasite left the place formerly occupied and stained, only to attack new territory of the sound skin.

"Three months ago I was compelled to use inunctions of mercury and, as an unlooked-for result, I found myself free from the microsporous squamæ. I do not know of any other cause of recovery, and desire very much that the readers of *Voço de Kuracistoj* would give information about it, for which I should be very thankful."

BROTHER COSMAS.

Conception, Mo.

PREGNANCY AT SIXTY-SEVEN

The march number of your journal contains an item, under the caption of "Pregnancy in Old Age," relating cases of pregnancy occurring in women at the ages of—one at sixty-one years, one at fifty years, and one at sixty-five years. I can go one better. Our Susanna Harvey, the widow of a revolutionary soldier, died in Stonington, Connecticut, August 11, 1859, aged one hundred years and nine months. Her last child (she had several children) was born when she was sixty-seven years old. This is a matter of record.

GEO. D. STANTON.

Stonington, Conn.

THERAPEUTIC CONCENTRATIONS

There would be just as much reason in a western farmer deciding to feed his horses unhusked corn on the stalks instead of ground feed as for a physician to administer the total products of a plant in a

certain diseased condition when one concentrated and purified part of the plant was well known to produce the results desired. Of course, the horse can eat the unhusked corn and the crude material in the stalks that is not needed, but he will put on flesh and develop strength better if he is fed the separated grain.

But it is not always the crude parts that we wish to eliminate in giving concentrated and separated drugs. Frequently the crude extract of a plant contains antagonistic elements which vary in their relative proportion according to varying influences of growth, and there is no way to determine this fact except to separate the active principles and administer them separately.

It is no argument against alkaloidal medication or in favor of the use of conglomerate products to claim that the latter have been used with good results in the past, hence no progress toward betterment is called for. The tendency of science is toward exactness in knowledge, of art toward perfect workmanship.

Crudeness, dirt, ignorance, and uncertainty are represented by the conglomerate products of drug preparation which goes no farther than soaking the soluble substances out of the roots or bark of a plant. The age of the blunderbus gun has faded from the memory of man, and the age of crude galenics is fast drawing to a close. Instead of firing a miscellaneous mixture through a parabolic curve, trusting to luck that the bomb may fall on the enemy of health, we shall soon aim direct, with scientific precision, to vanquish the hosts of disease.

But why argue such a self-evident proposition? It requires but little discernment to get a clear view of the "nigger in the wood pile."

Selfish interest will often explain the seeming plausible utterances of those who manipulate the statements which they wish you to consider from their point of view.

In reading over the arguments of those who oppose alkaloidal medication, I have almost involuntarily placed them in two classes: the intelligent knaves, and the innocent ignoramuses. The former fre-

quently almost succeed in covering up their tracks, the latter never try to do so. But revolution must always overcome inertia by persistent effort before we are even willing to progress from bad to better.

A. D. HARD.

Marshall, Minn.

EXPERIENCE WITH CALCIUM SULPHIDE

The recent reports on calcium sulphide have been of great interest to me, since for several years I have made quite frequent use of this valuable remedy. I think I can truthfully assert that I have found it of more general utility than any other drug with which I have become practically familiar. My experience with this agent is probably less extensive than that of many others who have written on the subject, but I have had some opportunity to observe its effects and have often found it extremely serviceable.

Speaking of its application in the fevers, I have often seen calcium sulphide exert a distinctly modifying influence on the severity of the symptoms in measles, materially enhancing the efficiency of other treatment. In typhoid fever, I have obtained equally good results; indeed, rather more favorable, for here the antiseptic action of the drug is particularly well manifested. In various cases of influenza it has also proved, in my hands, a valuable adjuvant to more powerful medicines.

I have been trying calx sulphurata lately in a tuberculous case of long standing, attended at times by great difficulty of respiration, and have been highly gratified to obtain considerable benefit with respect to this distressing symptom, giving a grain once in four hours.

As an all-around, systemic antiseptic, however, it appears to me that this preparation achieves its greatest triumph, for in this sphere it stands preeminently superior to anything and everything else in our materia medica. We may say that, as an almost universal rule, wherever a suppurative process exists it is indicated.

One other disease of which I will speak in this connection is eczema, in which affection calcium sulphide appears to pos-

sess almost the properties of a specific, especially in the pustular variety.

As to the matter of dosage, this can be regulated only by the effects sought and obtained, but it is not the least merit of this drug that it can be safely administered as freely and frequently as required.

This, in brief, covers some of the results of my observations concerning this remarkable preparation.

R. H. CLARK.

Limerick, Me.

INFANTILE TETANUS CURED WITH AMORPHOUS HYOSCYAMINE

A female child, after being delivered by me, developed tetanic convulsions twenty-four hours after birth. I at once put her upon amorphous hyoscyamine, putting 3-250 of a grain into 24 teaspoonfuls of water and ordering a teaspoonful to be taken every hour until relieved. During the first day 8 doses were given, with little effect. On the second day 6 doses gave some relief from the tetanic movements, but the third day 6 doses did not seem to act as well as the day previous. So I inspected the navel and cauterized it with 95-percent carbolic acid, neutralizing with alcohol. After this I dusted the navel freely with boric acid, repeating the latter daily until separation of the stump occurred. In the meantime the hyoscyamine was continued in the same dosage, repeated just enough fully to dilate the pupils, when it was reduced to maintain that effect. The child received in all from 6 to 12 doses daily for thirteen days, when the convulsions completely disappeared. I now order it given every three hours for a few days, and today, which is thirty days after beginning treatment, it had no return of the tetanus.

The result obtained is not the first of such cures by me, for I have seen quite a number of them from the use of hyoscyamine. However, the drug must be pushed to full effect. As will be noticed, 3-250 grain in 24 teaspoonfuls of water for a 24-hour old infant is a stiff dose; but it gave results which a smaller dose would not have produced. Therefore, give dose

enough to full effect, then less, as required. The bowels were opened with dram-doses of olive oil.

WM. F. RADUE.

Union Hill, N. J.

BREAST FEEDING

The following article, contributed to *The Bulletin* of the Chicago Department of Health last year, by Dr. Effa V. Davis, may be a little rudimentary, but none of us can know these things too well:

The feeding of a baby at its mother's breast is not so simple a matter that it can be done properly without some study and care by those in charge. More mothers could and would furnish breast milk to their babies with greater ease and comfort to themselves and to their babies if their medical attendants took more pains to teach them the facts about the physiology of lactation.

Some facts to be borne in mind are the following:

In Chicago, last summer, fifteen bottle-fed babies died to every one that was breast-fed. Mothers should be made to appreciate this fact when bottle-feeding is contemplated.

You can dry up a mother's milk by putting the baby to her breast only at long intervals, say morning and evening, or only at night. Such habits will spoil the best wet-nurse ever created.

You can check a mother's milk by constant or too many night feedings or by disturbing the woman's hours of sleep in any other way.

You can spoil the best breast milk in the world by feeding the woman too rich food, giving her alcoholic tonics or checking normal exercise.

You can "upset" the baby by putting it to the breast too frequently, loading a half-empty stomach with a fresh meal. Vomiting, colic, green stools and diarrhea are some of the results.

You can get the best results by first knowing what the wet-nurse yields to her baby, by a system of weighing the child before and after nursing. Every baby-doctor should keep suitable scales to rent or lend for this purpose until he is satisfied on the matter.

The interval between nursings can best be regulated when you know how much milk the baby gets in twenty-four hours. An ordinary baby will thrive best on not more than seven meals in twenty-four hours during the first three months of life, and often will do as well or better on six feedings. An effort should be made early to cut down night feedings, as it favors the welfare both of mother and child.

When the yield of breast milk is scanty and the child not gaining, give an ounce or two of artificial food just after its nursing, rather than omit a breast feeding altogether, if the child is under six months or even older and if the time be midsummer, as such a method keeps the breasts up to their best-yielding capacity. The old way of substituting a bottle for one or two feedings only checks the yield of milk all the more.

Mixed feeding, when properly conducted, may be begun with benefit to the nursling in its eighth or ninth month, but the physician *must* instruct the mother *what, when and how much* she shall give. The following will do no harm, but will greatly help, nourish breast-fed babies, when eight or nine months old, if properly prepared given at the proper time and in proper quantities:

"Pap" (stale bread) soaked in boiling water and cooked with cow's milk for a few minutes.

Vegetable soup, strained, with a little toasted bread.

Farina, or any other similar cereal, boiled and served with clean cow's milk.

Teach mothers the value of a drink of pure water to the nursling. Thirst is often mistaken for hunger, especially in summer.

DISCRIMINATING AGAINST THE DOCTOR

A diligent study of Western Classification No. 50, which gives the classification under which goods sent by freight are to be charged, seems to show that the physician is being discriminated against in the matter of freight-rates on surgical and electrical apparatus such as he may use in his profession, and that by reason of such unjust discrimination the medical profession

of this country has been mulcted out of hundreds of thousands of dollars.

Taking for instance an induction-coil, which may be used for a great many purposes, such as wireless telegraphy, automobile or gas-engine sparking, gas lighting or x-ray work, and referring to page 160, item 59, we find induction-coils (for physicians' use) subject to a double first-class rate, meaning and intending to mean that an induction-coil shipped to a physician is subject to this rate, but if shipped to a telegraph company and proof is produced that such coil is not intended for a physician, the first-class rate only, as per item 10, page 64, is applied, or if intended to be used as a spark-coil, a first-class rate as per item 9, page 61, will be charged.

Taking dry batteries for instance, item 14, page 61, these are shipped at a third-class rate, and electric bells, item 28, page 61, are first class, but a small faradic battery, item 18, page 61, such as are used by physicians and consist of one or more dry batteries, which take a third-class rate, and a small coil, such as is contained in any electric bell, is charged double first class. Dry batteries, as already stated, get a cheap third-class rate, but when these batteries are placed in a case and shipped to a physician as a galvanic battery, item 19, page 61, the rate jumps to double first-class. Telephone apparatus, item 34, page 61, which has from six to ten times the value of such batteries and compares favorably as regards bulk, gets a third-class rate. Arc-lights, with all their sensitive parts, get a first-class rate.

Electric meters, item 28, page 63, take a first-class rate, telegraph and telephone switchboards, power switchboards, all get a first-class or better rate, but the doctor who buys a wall-cabinet, item 42, page 64, which is nothing more than a switchboard with meters, pays double first class, or twice as much.

Cutlery, item 1, page 58, gets a second-class rate, but surgical instruments, which do not differ in weight or price appreciably from cutlery, are assessed double first class.

What does this mean when we speak of third class, second class, first class, or double first class?

Taking Crawford, Nebr., for instance, the rates in their order mentioned are \$1.37, \$1.72, \$2.00, and \$4.00, and for Pacific State points, the latter is from \$6.00 to \$7.00 per hundredweight.

That such excessive charges cannot offer any inducements to the doctor to equip himself is very plain, and it is especially a hardship on the beginner. The question, why such discrimination has passed unnoticed to date, is easy to answer. The doctor is but an individual and as such has no chance against the powerful railroads. If he were part of a powerful corporation like the telegraph or telephone companies, these railroads would soon be induced to lower their rates.

Every doctor who is interested in getting his instruments and apparatus at a lower freight rate should cut this out and send it to his Congressman and Senator with a request for immediate attention. The doctor by means of his profession and standing is quite a power in his community to be reckoned with, and, the cause being just, these unjust rates should be reduced.

FROM AN ANONYMOUS CONTRIBUTOR

I have known Dr. Wm. J. Robinson for many years. How long have you known him? I think you had better go a little slow on Dr. R. We know him in N. Y. quite well.

A DAM PHOOL.

[This anonymous letter is printed exactly as received. The signature being appropriate, further comment seems entirely unnecessary.—Ed.]

ARE YOU FIGHTING QUACKERY?

It is time that the medical profession became more thoroughly alive to the danger of quackery in its many forms, and took some active part in combating it.

Every reader of CLINICAL MEDICINE is familiar with the magnificent articles upon "Scientific Medicine vs. Quackery" contributed by Dr. William J. Robinson of New York. I am sure that everyone will be glad to know that these articles have

been reproduced in the form of a neat, paper-bound booklet, just the thing for free distribution among the laity in your own community. This little booklet tells the truth about quack doctors and their methods, about Christian science, osteopathy, chiropractic, the "medical institute," patent medicines, and all other kinds of falsehoods and impostures. You can do no more effective work to combat these evils than by giving this wide circulation.

These booklets are offered for sale at the price of \$2.00 a hundred. Every dollar you spend in circulating this literature will come back to you many times over. It will pay you to order liberally. Let us hear from you at once.

CICUTINE, VERATRINE, ATROPINE, AND CALCIUM SULPHIDE IN PRACTICE

I have on hand an old lady of about 79, suffering from senile dementia. Intelligence is manifested only for short periods and then but slightly. She has delusions and is at times almost unmanageable. I have found cicutine hydrobromide, two granules given from one to three hours apart, to work fairly satisfactorily, without the depressing effects usually resulting from the administration of bromides. There is no gastric irritation and the appetite, too, remains good.

Two years ago, treating a patient, I found the pains of intestinal cancer to be mitigated to a considerable degree by cicutine hydrobromide in doses of two granules every two to three hours.

Cicutine hydrobromide works well in hysteria, after the hypodermic use of apomorphine hydrochloride.

In children who are fidgety or show twitchings of the extremities, cicutine proves very effective.

I advise every member of the "family" to carry this remedy in his medicine-case, for he will find frequent use for it.

Right here, however, allow me to repeat the old, old story, that should be kept in mind by every physician: Proper absorption of nourishment and of remedies cannot be expected unless the gastrointestinal canal

is thoroughly cleared out, cleaned up, and kept clean.

The free use of veratrine in the pulmonary congestions will give excellent results. Get your results on the pulse by the use of small doses of the drug frequently repeated, then maintain the condition by lengthening the intervals. But under no circumstance forget to attend to the gastrointestinal canal! I believe veratrine to be our best general eliminant, if it "has a show"—that is, under proper conditions.

Whenever you have a case of collapse, do not forget atropine.

Recently I had to treat a case of gonorrhea of long standing, with stricture. The latter I treated by gradual dilation. Then I gave the appropriate remedies, but these failed to stop the discharge until I saturated the patient with calcium sulphide, keeping this up for ten days, when all discharge ceased. I am passing a sound every two weeks for an indefinite time.

HORACE R. POWELL.

Poughkeepsie, N. Y.

NEW ORDER OF TRANSMITTING SECOND-CLASS MATTER

Beginning with July 1, the new order of transmitting monthly and semimonthly second-class mail matter is in effect, and subscribers are herewith forewarned that some of them may possibly receive their numbers of CLINICAL MEDICINE a little later than heretofore. Most of our readers, no doubt, already are familiar with the laudable experiment of the authorities to help place the Postal Department on a paying basis, by delivering heavy-weight periodicals to central distributing points by fast mail, and from thence to distribute by regular mail. This naturally will cause a slight, though unimportant, delay, while it is expected to result in great financial saving to the Government.

SMILE AND HUSTLE

Smile, and the world smiles with you,
"Knock," and you go it alone;
For the cheerful grin
Will let you in
Where the "kicker" is never known.

Growl, and the way looks dreary;
Laugh, and the path is bright;
For a welcome smile
Brings sunshine, while
A frown shuts out the light.

Sigh, and you "rake in" nothing,
Work, and the prize is won;
For the nerry man
With backbone can
By nothing be outdone.

Hustle, and fortune awaits you,
Shirk! and defeat is sure;
For there's no chance
Of deliverance
For the chap who can't endure.

Sing, and the world's harmonious,
Grumble, and things go wrong,
And all the time
You are out of rhyme
With the busy, hustling throng.

Kick, and there's trouble brewing,
Whistle, and life is gay.
And the world's in tune
Like a day in June,
And the clouds all melt away.

NEWS NOTES

The meeting of the State Medical Society of Wisconsin was held in Waukesha June 6-8, with about four hundred physicians in attendance.

According to Health Commissioner Ycung of Chicago, a great many dogs in this city show traces of rabies. An epidemic of the disease is feared.

Prof. Henry Kraemer has been elected a member of the Council of Pharmacy and Chemistry of the A. M. A., in place of the late Prof. C. S. N. Hallberg of Chicago.

The patent-medicine makers recently won a victory in the Supreme Court of the United States when it was decided that it is not a violation of the "Pure Food and Drugs Act" to label a thing as a cure when in fact it has no curative qualities at all.

An association of the Medical Reserve Corps of the U. S. Army, Illinois Division, was recently organized in Chicago. Dr. Frank Billings was elected president of this organization. President Taft has appointed about one hundred Illinois physi-

cians members of this "Reserve Corps," giving each physician the title of "First Lieutenant."

The North Carolina National Guard has ordered from the War Department at Washington typhoid vaccination material for one thousand men, with a view of vaccinating all the men of the North Carolina Guard as a means of preventing the occurrence of this disease, following the annual encampment.

A correspondent calls our attention to the fact that the little poem "Chirurgical Myth" sent us by Dr. Layton, and published in the May number of *CLINICAL MEDICINE*, page 553, is very similar to the poem, "Strictly Germ-Proof," written by Arthur Guiterman some eight years ago. These coincidences do happen.

The old-time doctor who used powdered toad was not so far off, after all. Prof. Abel, and his associate, Dr. Macht, of Johns Hopkins University, have just succeeded in securing the "active-principle" from a species of tropical toad known to the world of science as *bufo agua*. This substance is called "bufagin," and is said to be a valuable heart tonic, having an action somewhat like that of digitalis.

The latest in social circles is the "whooping-cough party." It has become quite a fad for mothers whose children are suffering from pertussis to invite in other similar sufferers for mutual entertainment. At a party recently given at Brockton, Mass., at which eight "whoopers" were present, a cake was presented as a prize to the child who coughed the loudest and the longest. That was fine, wasn't it?

By all means, read the advertisement of the Coca-Cola Company, appearing in this number of *CLINICAL MEDICINE*. It may not be known to our readers that this company has recently won a great case in the federal courts. It was charged that coca-cola was a habit-forming beverage. This charge has now been refuted and

shown to be untrue by the highest courts in the land. Coca-cola contains less caffeine than either tea or coffee, and no cocaine at all. Read the details.

"Each time a hospital or dispensary treats a patient able to pay," a writer says in *The Bulletin of the American Academy of Medicine* for April, 1911, "it is robbing some man of a fee, small though it may be, but in the aggregate which would go to make up his yearly income, and hand his name on to other patients. The hospital becomes, thus, the young man's greatest competitor, a real obstacle to successfully beginning his career, and by reason of it a strong temptation to resort to things unprofessional, questionable, and sometimes even criminal."

The "German Society for Combating the Diseases of the Sexual Organs" is to be given space at the forthcoming International Hygiene Exhibition, to be held at Dresden this summer, to present information to the general public concerning the ravages of the venereal diseases and the best means of preventing and combating them. There are to be exhibited good illustrations, photographs and models showing the various forms and stages of these diseases; and the whole system of prostitution, and how it works, will be brought forcibly to the attention of the people.

"The next legislature ought to pass a law placing drugs and medicines under the state food act," said A. Hanby Jones, Illinois Food Commissioner, recently. "There are hundreds of drugstores in Illinois in which the drugs have been on the shelves from twenty-five to thirty years. Such drugs are unfit for use. There is absolutely no inspection of drugs. The board of pharmacy examines the druggist, but not his drugs. The danger to the health of the people from this one source is untold. Then there are patent-medicine factories turning out nostrums which cannot be reached unless they go out of the state and are seized by the federal government."

According to the newspapers, Dr. Howard A. Kelly, Professor of Gynecology in the Johns Hopkins University Medical School, has just purchased \$15,000 worth of radium, by far the largest amount of this valuable substance ever imported into America. Dr. Kelly is experimenting with radium in the treatment of cancer.

Although the number of medical schools in the United States remains about stationary, the number of physicians being licensed by state examination boards is diminishing. In 1910, 7004 were examined and 18.4 percent failed; in 1909, 7287 were examined, with 19.6 percent failures; in 1908, 7770, with 21.7 percent failures, and in 1907, 7279, with 21.3 percent failures.

Wisconsin now prohibits the use of public drinking cups in railway trains, railroad stations and other public places, and a similar warfare is being carried on against this nuisance in other portions of the country. Good! But, while the drinking cup has caused some hundreds of deaths, the saloon has caused its hundreds of thousands. Would it not be a good scheme for the medical profession to become interested in a campaign against this greater public danger?

Prepare to attend the annual meeting of the Tri-State Medical Society of Illinois, Iowa and Missouri, which will be held this year at Ft. Madison, Iowa, on September 26 and 27. The president of this Society is Dr. Walter Urban Kennedy of St. Louis, Mo.; secretary, Dr. Alfred S. Burdick, of the staff of THE AMERICAN JOURNAL OF CLINICAL MEDICINE. The address in medicine will be delivered by Dr. Thos. G. Atkinson of St. Louis, editor of *Medical Brief*, and the address in surgery by Dr. Geo. W. Crile, Professor of Surgery in the Western Reserve University, Cleveland, O. The Tri-State has been greatly enlarged in membership during the last year or two under the able direction of Dr. Emory Lanphear of St. Louis, who is treasurer of the organization. The program for the next session promises to be an exceedingly interesting one. Send \$2 to Dr. Lanphear for membership.

We are pained to announce the death of Dr. James Evelyn Pilcher, who passed away in Savannah, Georgia, April 9, aged 54 years. Dr. Pilcher was well known to every member of the Association of Military Surgeons of the United States, of which he was for many years the secretary as well as editor of its journal. He had a long and interesting army experience. He was commissioned assistant surgeon in 1883, served through the Spanish War, and retired from active service in 1899. Major Pilcher was a delightful man; always gentlemanly, yet always energetic, scholarly and scientific. Those of us who have come into contact with him from year to year in the meetings of the American Medical Editors' Association, of which he was one of the working members, will not soon forget him. For the last few years he has been totally incapacitated because of failing eyesight. Everyone who knew him, as we knew him, will join with us in paying tribute to his memory.

A drug salesman sends the following story: "A few days ago, in one of the small cities in my territory, I was invited by one of the doctors to attend a meeting of the county medical society. As the county has about 120 doctors, and as there were about forty in the city, I thought there would be from 60 to 75 doctors present at this meeting; so, to do the nice thing, I got a box of 50 good cigars and went to the meeting with the doctor who had invited me. I have been smoking those cigars ever since! There were thirteen doctors present, and four of these, one a lady, were not smokers. This society seems to be troubled with asthenia. A ludicrous feature was that the meeting was held in the office of the cemetery association, which under the circumstances (it being a dying association) was most appropriate."

We suggested to our friend that the best thing that could happen to that society was to get into a good lively scrap. Though we believe in harmony, there are times when too much harmony is a dangerous thing. In this case, possibly a good fight might cause the "smokers" to turn out.

State-Board Examination Department

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Many students and physicians have peculiar ideas concerning state examining boards. These ideas vary mainly according to the character of the individual, but change in intensity with the weather, as well as according to the depression or stimulation of their surroundings.

Naturally, when things go wrong, the secretary of the board is the one to bear the brunt of the criticism, since his name appears on all the literature sent out, and since he is the one who gives out information concerning the examinations, answering hundreds of questions from all kinds of people on all kinds of subjects.

Many imagine that the secretary grades the papers, and if they fall below the passing mark they think it is the secretary's fault, that he is prejudiced against them, unfair or "crooked." Common sense should show them that this idea is all wrong, for in an examination in which there are 400 candidates, with ten questions in each of ten different subjects, there would be 40,000 written answers for the one man to go through and grade.

Even to read these 40,000 answers would take days of time, but if you stop to think that many candidates write from one-sixth of a page to two or three pages in answer to each question, and that many write and spell poorly, you will readily see that this examination would cover more work than is contained in all of Gray's "Anatomy". If the unhappy secretary were compelled to do this alone—several times a year, as in some states—when would he get any time to attend to the rest of his official duties?

In most states the candidates' papers are distributed among the members of the board, each member having charge of one or more department or subject. He does not even know whose papers he is

marking, since these papers do not have the names of the individuals written on them, but are designated by number, the identity of the candidate being concealed in the most ingenious ways possible.

As a matter of fact, the markers do not care to know the names of the owners of the papers, for if they did, no matter how conscientious they might be, they might be tempted to raise the markings of a friend or lower the grading of one they thought below the standard.

There is no doubt that members of the examining boards are constantly annoyed by letters from enemies as well as friends of prospective candidates. It certainly would not be fair or just for the marker to be influenced by the anonymous or other communications assailing any candidate; and if there were any likelihood of these influencing the board, they would be overwhelmed with them.

On the other hand, many men actually fail because they think they have some kind of a "stand in" with the board. Some politician promises to write a letter to the secretary for a friend, while another depends upon the pull he has with some political power, varying from a precinct captain to a senator or governor, the president or secretary of some medical society, or the schoolmate of some member of the board.

There is no doubt that every state-examining-board member gets stacks of letters of this kind. If you were to receive them, each asking some favor which you could not legitimately grant, what would you do? You would pay no attention to them, especially when you considered that they were without reason and impossible of granting.

Believe me, then, no board is going to mark you up or down. If you are within

the limit, you win; if outside, you lose. It is your knowledge of the subjects examined, and your ability to express your knowledge clearly and succinctly, in an understandable way, which is going to count. The object of this department is to enlarge your knowledge and help you to use it to the very best advantage possible in these tests.

MATERIA MEDICA AND THERAPEUTICS

1. Write a prescription for acute bronchitis in a child two years old.

Codeini sulphatisgrs. ii
 Elbixir. aurantiidrs. iij
 Sol. potassii citratis, q. s. ad.....ozs. iij

Sig.: One-half to one teaspoonful every three hours.

A better prescription is calcidin, 1-3 grain every hour, in hot water, associated with minute doses of aconitine, frequently repeated, for fever, and emetine, to loosen.

2. Write a prescription containing two cerebral depressants and give the conditions in which each is indicated.

Chloral. hydratisdr. i
 Potassii bromididrs. ii
 Syr. pruni virginianaefl. oz. i
 Aquae, q. s. adfl. ozs. iij

Sig.: Dessertspoonful at night.

A better prescription is hyoscine, as combined with morphine and cactin. This is indicated in severe spasm or mental excitement, tetanus, and strychnine poisoning.

3. Describe in detail the physiological effects of nux vomica. Name the structure on which strychnine acts principally.

Nux vomica is a vasomotor stimulant, acting on the vasomotor center. It stimulates the motor tract of the spinal cord, the receptive activity of the sensory centers, reflex activity, and in poisonous doses, produces tetanic convulsions. The frequency and force of the pulse are increased by stimulation of the heart-muscle and its ganglia. The respiratory rate and vital capacity, by stimulation of the respiratory center. It depends for its activity upon its alkaloids, strychnine and brucine, which should be given as indicated.

Strychnine is an active vasomotor stimulant, acting powerfully on the heart and respiratory centers.

4. Name all the cardiac stimulants known to you. Discuss one, giving its physiologic and therapeutic actions and dosage.

Digitalis, ammonia, ether, alcohol, caffeine, strychnine, strophanthus, ignatia, sparteine, convallaria, amyl nitrite. Amyl nitrite is used to relax spasm in epilepsy, convulsions, tetanus, puerperal eclampsia, dysmenorrhea, asthma, pertussis, migraine, strychnine poisoning, angina pectoris. Dose, 3 to 5 minims, by inhalation.

Physiologic action: It is a strong nerve depressant and sedative. It depresses the motor cells in the Rolandic area of the cerebral cortex, as well as the large multipolar cells in the anterior horn of the spinal cord. However, in medicinal doses, it cannot be used to stop pain.

It depresses the pulse through the central inhibitory cardiac apparatus (the vagus) and also relaxes the arterioles by depression of the vasomotor centers in the floor of the fourth ventricle. In small amounts, it stimulates the heart, but its dominant action is depression.

It causes the oxyhemoglobin to change to methemoglobin. It reduces temperature by causing methemoglobin to form in the red cells and therefore suboxidation of the tissues and depression of the vasomotor centers, increasing heat radiation in the skin besides the depression of the heart.

5. Discuss serum therapy, giving examples. Name any official serum known to you.

Serum therapy consists in the prevention and cure of certain acute infectious diseases, by administering subcutaneously or applying locally to mucous membranes a blood serum containing antitoxin or antimicrobial substances antagonistic to the toxins or to the specific microorganisms themselves; also by administering, in the same manner, but contained in some other medium than blood serum, attenuated cultures or the toxins from such cultures. Diphtheria antitoxin. Antistreptococcal serum. Antitetanic serum.

6. Under what conditions and how would you use the following as therapeutic measures: oxygen, male fern, thyroid extract, heat, cold?

Oxygen, for asphyxia, by inhalation. Male fern, for tape-worm, as oleoresin aspidii, 1 dram, after fasting. Thyroid extract, in disease of thyroid gland with deficient secretion; extract of the gland, 5 grains. Heat, as a diaphoretic, for dropsy, or locally to relieve congestion; cold, in form of tub bath or sponge bath, to reduce fever, and as a stimulant.

7. Write half a page on the value of climate in the treatment of disease.

The proper climate for diseases varies according to the disease, as well as the various stages of the disease. A person naturally fares better in the climate of which he is a native, but may do better in another climate during disease. Most diseases are better treated in a climate having a large number of bright, sunny days, one that does not have sudden changes, and one that is not damp. Patients with bronchitis do better in a moist, but warm climate. Of tuberculous patients, some require a dry climate, while others seem to improve in moist climates; this is no doubt due more to the altitude and atmospheric pressure than to moist or dry conditions. As a rule, however, a cold, dry, sunny climate is the best for all cases concerned. A dry climate is unsuitable in emphysema, bronchiectasis, bronchitis, many forms of heart disease, acute febrile attacks, certain cases of insomnia, and nervous diseases, acute pneumonia, very old and very young, who are used to low altitude. The conditions favored by high, dry climate are night sweats, malaria, rheumatism, gout, certain stomach diseases, most chronic diseases and certain nervous diseases.

As previously stated, the conditions, as well as the presenting symptoms, are to be taken into consideration by the physician.

8. Name three diaphoretics and give therapeutic indications, and explain exactly how they lower temperature.

Hot water reduces the temperature by dilating the peripheral capillaries, thus bringing the blood from the deeper parts to the surface and removing inflammatory exudation. It takes the blood from the congested areas of the vital organs by stimulating the sweat-centers and thereby reduces arterial tension, dilating the vessels through the vasomotor system.

Opium acts as a diaphoretic by checking all secretions except those of the skin, which naturally takes up the work made necessary by the deficient action of the kidney. Opium raises arterial pressure and thereby forces the blood to the surface from the deep parts. It also stimulates the sweat-center in the floor of the fourth ventricle, and some authors claim that it stimulates the cells in the sweat-glands. It is of particular value when the patient is kept warm.

Pilocarpine produces sweating by stimulating the secretory nerve-fibers supplying the sweat-glands, and its action is not due to vasomotor palsy; however, the vessels are dilated.

9. Give the treatment of chronic cystitis, and names and doses of drugs employed and method of using them.

Irrigate bladder daily, under aseptic and antiseptic precautions, with 1:10,000 solution of bichloride of mercury, for infection. In acute cystitis, aconitine in 1-134-grain doses every half hour until fever is reduced.

Arbutin, in 1-3-grain doses, and asparagin, 1-67 grain, act on the mucous membrane; such a dose to be given every two to four hours.

10. Name three antipyretics. Give dose, therapeutic indications, and physiological action of one of them.

Acetanilid, quinine, guaiacol.

Acetanilid. Dose: 5 to 10 grains. Therapeutic indications: All sthenic conditions, such as fevers. Physiological action: It depresses the central nervous apparatus by depressing the centers. It reduces the temperature, causing degeneration of the red cells, and dilating the vessels at the periphery. It has little action on the respiratory and circulatory apparatus, except in large doses. It depresses the motor apparatus by depression of the motor cells in the anterior horns of the cord. It prevents sensory impulses from passing to the brain by depression of the posterior columns of the spinal cord.

PHYSICAL DIAGNOSIS

1. How would you distinguish ascites from the other abdominal enlargements?

In ascites, in the dorsal position, the umbilical region appears flat, while the lateral portions bulge. Fluctuation is present. Tympany shows bulging over the umbilical region and flatness in the flanks. The results of percussion change with the position of the patient. There is absence of any tumor.

In ovarian dropsy, the accumulation is local and confined to the ovarian region, and does not change with the position of the patient. Fluctuation is absent. Vaginal examination may reveal the presence of a tumor.

The etiology of ascites differs from that of other abdominal enlargements.

In pregnancy, there is a history of suppression of menses; ballottement; fetal heart beat.

2. Classify the adventitious cardiac sounds, and name the diseases that are factors in their causation.

Mitral regurgitant, mitral stenotic, tricuspid regurgitant, tricuspid stenotic, aortic regurgitant, aortic stenotic, hemic (in anemia and chlorosis, due to blood changes and lessened blood pressure). Causes: Rheumatism, overexertion, chorea, syphilis, alcoholism, sudden and severe muscular strain.

3. Name the physical findings in an aneurism of the transverse portion of the arch of the aorta.

If large, protrusion may be seen in intercostal spaces. In congenital and long-continued cases the cartilage or ribs may be absorbed, and a pulsating tumor may be seen or felt. The stethoscope or phonendoscope may divulge a venous hum. There may be an apparent drop in the pulse beat on one side or the beats may be asymmetrical on right and left side. On palpation, a dull sound is heard on percussion. The absence of temperature and urinary findings is important and may be included under physical signs as well as the skiagraphic picture.

4. Give the physical findings in atrophic cirrhosis of the liver.

The symptoms of portal obstruction and gastrointestinal catarrh, such as coated tongue, fulness and distress after eating, loss of appetite, flatulence, constipation, and highly colored urine. Later, enlargement of the abdominal veins, hemorrhoids, ascites, swelling of the feet, hemorrhages from various mucous membranes, enlargement of the spleen. The liver, on palpation, is found to be enlarged, but later it is contracted and the hepatic dulness accordingly diminished.

The abdomen is distended with fluid, causing a high-pitched sound on top, and a flat sound over pendulous portions. Liver dulness is decreased and tympany of liver region greatly increased. Palpation finds liver high up under costal arch, and small and hard. The stool may be light in color. The temperature is negative. Mucous hemorrhages are common.

5. (a) Give the physical signs of consolidation of the lungs in acute tuberculosis. (b) Give the physical signs of cavity formation.

(a) In consolidation, the lung is solid, and a dull sound is heard on percussion. If there is an extensive exudation, there is bulging of the intercostal spaces and these pit to a certain extent on pressure. On listening over the affected area, there is absence of the normal lung sounds. Evening rise of temperature and night sweats. Second pulmonary sounds accentuated and disturbance of the pulse.

(b) On inspection, flattening of chest over cavity. Palpation, fremitus increased. On percussion, if the cavity is empty, the note is tympanic or amphoric, depending on the size of the cavity and its relation to the chest-wall. When the cavity communicates directly with a bronchus, the so-called "cracked-

pot sound" is heard and the percussion note changes when the patient alternately opens and closes his mouth. When the cavity is filled with exudate the sound is dull. On auscultation over an empty cavity, increased vocal resonance is noted, and pectoriloquy, tubular, cavernous or amphoric breathing. If the cavity contains fluid, bubbling râles are heard.

OPHTHALMOLOGY AND OTOTOLOGY

1. Name cause, symptoms and treatment of acute iritis.

(1) Syphilis, rheumatism, gonorrhea, smallpox, septicemia, typhoid fever, pneumonia, diabetes.

(2) Pain in the eye and forehead, lacrimation, photophobia, dimness of vision, unequal pupils, cloudiness of the aqueous humor, punctate deposits on the posterior surface of the cornea, change of color of the iris.

(3) In syphilitic iritis, mixed treatment; in rheumatic, large doses of salicylate of sodium; in the other varieties, treat the constitutional condition. Locally, dilate the pupil with atropine and keep it dilated until all of the symptoms have disappeared; keep the patient in a dark room if possible, on a light diet. Treat the offending cause.

2. Define entropion, myopia, blepharospasm, photophobia-ptosis, chalazion.

Entropion: The inversion of the edge of the eyelid.

Myopia: Nearsightedness; short sight, eyeball too long.

Blepharospasm: Spasm of the orbicular muscle of the eye.

Photophobia: Intolerance of the eye to light; fear of light.

Ptosis: Drooping of the eyelid.

Chalazion: A tumor of the eyelid, formed by the distention of a meibomian gland.

3. Give the relations of the middle ear.

Outer wall is formed by the membrana tympani; inner wall is the outer wall of the labyrinth; posterior wall separates it from the mastoid cells; anterior wall separates it from the carotid canal; into the middle ear opens the eustachian tube anteriorly, and the mastoid cells posteriorly.

PEDIATRICS

1. Name the symptoms and give the treatment of pertussis.

Whooping-cough shows very slight fever, begins with coryza accompanied with an acrid discharge, conjunctivitis, laryngitis and bronchitis. The cough becomes paroxysmally explosive, a series of expiratory efforts being followed by a peculiar, ringing, inspiratory whoop. During these attacks the child appears as if about to suffocate, and some times it vomits.

The violence of the cough may cause ulceration of the under surface of the tongue or there may be hemoptysis or epistaxis. Emphysema, interstitial or vesicular, may be induced. The paroxysms recur with variable frequency. May be complicated by catarrhal pneumonia, and bronchitis may persist.

The treatment consists in proper hygiene and diet, and the following prescription has been found to be of value:

Antipyringrs. xvj
Sodii bromidigrs. xlviii
Tinc. belladonnæ foliæm. xvj
Aquæ destillatæ, q. s. adozs. ij

Sig.: One dram in water every two hours.

A better remedy used today is calcium sulphide, to saturation. Atropine, to mild physiologic effect.

2. Give the degree of heat and time employed in scientific pasteurization of milk. Describe commercial pasteurization.

Milk is heated to 140° F., and this temperature maintained for twenty minutes. This will destroy tubercle bacilli and all pathogenic germs. Some authors claim that the degree of heat must be a little higher than 140° F., and some have found or claim to have found, tubercle bacilli in milk heated to 175° F. Flask pasteurization is heating the milk to 170° or 175° F. for a part of a minute, and then cooled immediately to 45 or 50° F. Commercial pasteurization consists in subjecting milk to a temperature slightly below the boiling point for a minute or less, and cooling.

In pasteurization, the lactic-acid bacilli are killed, while certain harmless bacteria, many bacteria of putrefaction and spore-forming bacilli survive. For this reason, pasteurized milk seldom sours, but gradually putrefies.



CLINICAL · MEDICINE POST-GRADUATE SCHOOL OF THERAPEUTICS

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PART III.—LESSON TWENTY-TWO

NEURASTHENIA—THE TREATMENT AND GENERAL MANAGEMENT

It should be remembered that neurasthenia is essentially a chronic malady, that its development often is rapid, as its advent is insidious, and that the final recognition of its presence may occur only after weeks or months of its existence, after the entire nervous system has become involved. The individual may have been enjoying normal health for some time. Suddenly he manifests a strange, unwonted disposition—is peevish, a prey to unreasoning fears, loses sleep and appetite, is listless and distracted, perhaps even indifferent in his family relations, and evidently a victim of secret care. Gradually he realizes the fact that he is not himself, that his nerves are seriously unstrung, and that he requires a change—he is neurasthenic, and powerless to cope with the conditions to which he is subject. There is no occasion for despair, however; the most obstinate case may yield to rational means of restoring mental and bodily health.

Rest, Physical and Mental.—It cannot be too strongly impressed upon the sufferer that great benefit can be derived from rest. This regimen may be regulated according to the severity of the case, being relative or absolute in proportion to the requirements indicated. In milder cases, a few hours of extra sleep daily may prove an efficient means of relief.

Only the most careful study of each individual case can rightly determine the precise procedure to be adopted. The difficulty in determining whether the neurasthenic condition or the gastrointestinal disease was the primary condition of any given patient, is often very great and frequently insurmountable, but from a practical point of view, the answer does not appear to be important.

If the gastrointestinal disease is purely neurasthenic in its inception, it soon becomes much more than this in a large number of cases, and requires much the same line of treatment, whether it is primary or secondary. In all cases, rest must be considered the essential and rational basis of the line of treatment chosen, everything else being subservient to its beneficent influence.

Bearing in mind always that the particular neurosis under consideration is largely, often chiefly, psychological, it is impossible to overestimate the reflex importance of rest in its salutary action upon the mind. Perfect relief from bodily fatigue works wonders in effecting general amelioration, although in many cases gentle and well-regulated exercise is of unquestionable value, especially in certain states and in certain stages of recovery. Released from the wearing anxieties which have finally

resulted in a neurasthenic condition, the mental faculties of the victim gradually but surely regain their normal strength and elasticity, particularly if the environment is such as to inspire reawakening hope and confidence.

A new life appears to accompany the results of carefully studied and judicious treatment, and in compulsory, yet grateful, repose the patient soon finds that his thoughts are brighter and more cheerful, his capacity for mental enjoyment keener, and his physique markedly improved under the influence of the general recuperation. Sleep and healthy digestion, which have perhaps long been strangers to him, assume a natural phase; troubles which but lately oppressed the mind with persistent anxiety appear purely imaginary, or at least are deprived of their baneful effect, while the entire system responds favorably to the new regimen and watchful care.

The records of this treatment abound in illustrations of its beneficent agency in the recovery of normal conditions. It is emphasized strongly here as of unique, paramount importance, in which experience leads us to place almost implicit faith.

Hydrotherapy, in the opinion of the most competent authorities, is an invaluable ally in dealing with neurasthenia. It has even been asserted that there is probably no chronic disease in which its application contributes more largely to the betterment of the patient's condition, and which renders the beneficial effects of a changed environment, the removal of etiological factors, of proper diet, electricity and medication more pronounced and enduring.

Nearly half a century ago it was declared: "Prolonged continuance of anomalies of the nervous system not rarely deranges important functions. Since all functions depend upon nerve action, and no other remedy is capable of altering the nervous system in a mild manner so rapidly, surely, easily and thoroughly as water, this simple remedy must occupy the first rank as a nerve tonic." (Preiss.)

Other eminent writers have similarly endorsed the value of hydrotherapy and balneotherapy in neurasthenia; Jolly recommending the imbibition of large quan-

ties of water as an aid to renal and peristaltic action, its external application being valuable in those cases in which increased excitability is combined with tendency to exhaustion.

One can hardly overestimate the efficacy of cold rubs, half and full baths with friction, of douches, sprays, etc., in their favorable influence upon the cutaneous tissues and upon the circulation and tone of the vessels. Kraft-Ebing asserts that "in the management of neurasthenia the water treatment is of the greatest value, because, as applied preferably in institutions, it admits of all possible excitant, calming and alterative effects upon the diseased organism and its tissue change." He considers hydrotherapy important in reducing insomnia, and in pronounced neurasthenia regards it as a valuable aid in regulating cardiac activity, dilating the peripheral vessels and increasing or diminishing (as desirable) the cerebral circulation.

Various hydiatric measures may be adopted, all of them more or less efficacious, according to the conditions in which they are applied. Klemperer is authority for the assertion, amply corroborated by experience, that "in hydrotherapeutic efforts we observe quite an extraordinary and incomparable stimulation of the nervous system, which is reflected upon the various organs." Dr. William N. Draper, speaking of this procedure, remarks: "It seems to be more effective than any treatment by medicine in stimulating the nerve-centers, in restoring the equilibrium of the circulation and reviving the activity of the organic functions," adding forcibly that "its best results require the appurtenances of a well-ordered establishment, where all the various methods of applying water can be wisely and skilfully directed."

Many like testimonials might be adduced to show that in the water-treatment there resides a veritable means of restoration. "Who can calculate," says Dr. Frederick Peterson, "to what degree we may thus influence the biochemical processes of the body, the metabolism of tissues, the carrying off of degenerated and toxic substances, or determine how much we may affect the vascular neuroses, the loca-

anemias, and the hyperemias of the brain and spinal cord?"

Electrotherapy.—With regard to electricity, especially the static form, its use is generally conceded to the treatment of local neurasthenic symptoms, such as morbid cephalic sensations, extreme intestinal atony, weakness of the sexual organs, etc. In these conditions, both faradism and galvanism, combined or alternated, have proved beneficial. Much depends upon the competent application of this subtle force—so far as experiment has shown, its curative property in certain cases seems undeniable, while as a therapeutic agent in obstinate neuroses it is inferior to rest and hydrotherapy.

Drug-Treatment.—The treatment of neurasthenia is marred by the usual quackeries which fix upon a single symptom as the disease. The drugs generally prescribed for their tonic effect are, as Bremer observes, nux vomica or its alkaloids, arsenic, phosphorus, quinine, bromides, iron, hypophosphites, and a few others. None of these remedies will cure; iron is particularly objectionable, as it is, as a rule, not well borne by the neurasthenic. Quinine often is administered in excessive doses for the erroneously assumed complication of malarial infection.

There is no drug (and I say this after careful and long observation) which can restore or create nerve-strength and brain-vigor, as is so often claimed by proprietary-medicine men. The majority of the much advertised nerve tonics are not worth a trial. But these articles are in great vogue, owing to recommendations of sadly mistaken physicians in good standing. The thousands of barrels of "nerve tonics" taken annually mean misery to untold numbers of neurasthenics and their families, since such patients, when poor, consider it of greater importance to buy their "nerve tonics" at the rate of \$1.00 a bottle than to provide necessities for the family.

Physical Exercise.—These drug-prescription errors are complicated with errors involving exercise and diet.

One of the commonest and most disastrous prescriptions of this kind given to the neurasthenic, as Bremer properly says,

is to "take plenty of fresh air and exercise." The "fresh" part of the injunction is all right (in some sanitariums such patients are often compelled to be in the open air all day, even though in bed and when too weak to move about or sit up), but the prescribing of "exercise" is all wrong. There is a widespread delusion that exercise is beneficial under all circumstances. The acme is reached when the gymnasium and athletics are recommended to every neurasthenic. Many athletes and prize-fighters become neurasthenics by dint of too much muscular exercise. Even in laboring men who have heavy work to perform, nervous prostration often results.

Whenever and as often as a muscle is contracted certain brain cells enter into activity. The brain in one or more of its parts is, in neurasthenics, the easiest irritated and exhausted. Going to the close functional dependence and interdependence of all parts of the brain, work of the motor region governing muscle contraction during exercise must affect other weakened and easily irritable parts. Some cerebrasthenics whose slightest mental effort is followed by brain-fag can walk long distances without feeling any fatigue—but this is often an expression of overfatigue.

The Diet is an important factor, but, like other measures, this also often is badly abused. Neurasthenics not seldom are advised to eat plenty of nourishing food; and they will gorge themselves, without considering that it is not the amount of nutriment—even when properly digested and absorbed—which determines nutrition, but the use to which the digested food can be put in the tissues.

The artificial foods have the effect of weakening the stomach by rendering it, so to speak, apathetic, thus interfering with the churning of the food and the secretion of gastric juice. One ounce of butter with bread digested naturally outweighs a pound of beef incorporated in the system under artificial conditions. Beef extracts are especially objectionable for neurasthenics. Milk and fresh fruit often disagree with these patients.

Dietetics, therefore, should be a matter of individual prescription rather than of

any general directions. Excess of the proteids and excess of the starches and sugars are to be avoided, since the two excesses acting in a vicious circle aggravate each other. Starchy food fermenting in the intestine favors absorption of proteid products of decomposition.

The General Principles of Treatment consist in educating the patient to live within his nerve-energy income—which is excessively small. The man of average strength cannot with impunity attempt to perform the muscular feats of an athlete or prize-fighter. Likewise, the neurasthenic cannot do what many of his acquaintances do. He must forego a great many pleasures; abstain from many pastimes and entertainments; refrain from many articles of food which to him seem simple, natural and healthful, but, nevertheless, stand in the way of his recovery. He must, above all, learn his limits.

His treatment must be a sort of education, teaching him to be patient and temperate in all things. He must learn to adapt himself to his surroundings, to reestablish the lost normal equilibrium between himself as an individual and his environment. To mitigate is not to prevent the collapse, which constitutes such a discouraging feature in the course and progress of neurasthenia, discouraging alike to patient and the family.

To achieve this, the patient must be taught to avoid extremes, especially of emotion and also of work, mental or physical; in short, bodily and mental hygiene adapted to his individuality must be instituted. No rest-cure, no seaside, no gymnastics, no cold or warm water, in fact, no one particular method is equally applicable to all the cases. And drugs alone will not bring about restoration to health.

Some Specific Advice.—There are certain remedies, however, that will be found of great value in many cases of neurasthenia.

Knowing, as we do, that there is always an autotoxemia in these cases, it follows that free elimination, through all emunctories, especially the bowels and kidneys, is necessary. Hydrotherapy and balneo-

therapy, as already indicated, favor elimination through the skin and kidneys. But the bowels should be kept active, and that by remedies which do not by their secondary action tend to constipate or to disturb the stomach. I have found some simple laxative saline, like sodium phosphate, rochelle salt, or, what has proved of special value in many cases of mine, an effervescent saline laxative usually to act best.

As a general tonic in convalescence, strychnine and arsenic; and if the case is one of sexual neurasthenia, triple arsenates (strychnine, quinine and iron) with nuclein, will prove of great value.

But during the entire course of the treatment the patient should be under the control of a physician, and during treatment should be severed from the environment in which the disorder has grown up. He should receive dietary, hydrotherapeutic, balneotherapeutic, and drug treatment only as indicated in his particular case. The great results formerly attained at watering places were due to the partial application of these principles and to the medical control exercised.

No rest-cure is properly carried out where the principles indicated are neglected. Rest-cures under lay control, whether of trained nurses or otherwise, are simply quackish lounging places. That the training of a widely advertised system of rest-cure is eminently deficient is shown by the fact that nurses trained under that system never detected the untoward actions of drugs used in treatment until decades after their existence had been pointed out by neurologists.

In conclusion, it may be stated, in general terms, that the malady now recognized as neurasthenia, complex as are its various manifestations, and obscure, often, in its etiology, is more amenable to successful treatment than is commonly supposed. I have indicated the prominent features to be considered, together with the means of alleviation and cure proved by actual test to be most efficient. No victim of the wide-spread malady should despair, or imagine that his case, however aggravated, may not yield to intelligent

care and the employment of methods whose record augurs the happiest results.

GEORGE F. BUTLER.

Chicago, Ill.

THE MEDICAL TREATMENT OF NEURASTHENIA

Few diseases so well illustrate the ancient tale of the seven blind men and the elephant as does neurasthenia. Most of us, in forming a mental conception of any malady, are influenced especially by some single case that has made a particularly powerful impression upon us. Same with other things—many of us, if asked to describe an ideal woman, would immediately begin with the inventory of some single specimen. Some would be just tall enough, plump enough, fair enough, her eyes would be—? her hair—? nose—? and so along the list of charms. She would be beautiful, amiable, witty, fascinating; and, above all, she would believe the portrayer just about right.

Dr. Gould would unhesitatingly ascribe neurasthenia to eyestrain, and adduce many telling examples of relief afforded by fitting the eyes with glasses. Each specialist could "copper" this by cases of his own, of similar import. Acton and the early, or theologic, school of specialists in the study of sexual excess attributed neurasthenia to this cause. This commends itself to many as very likely to be true; but the lesson taught by impartial, open-eye and open-mind observation is rather the astonishing abuse of the sexual function nature can endure without permanent injury. I mean in the young. The train of symptoms described in "Mlle. X, My Wife," must be peculiar to France, for never in my forty years of practice have I witnessed any case of the sort, from sex-excess.

Fecal Autotoxemia an Ever-present Element.—Two etiologic factors are constantly present in neurasthenia—fecal autotoxemia and a drain of nerve-force. The latter may be in an eye needing aid, or any other fault that is a constant source of slight irritation. A corn may answer, as every step causes a little pain or discom-

fort, and the aggregate loss of nervous energy in a day is considerable. It is apt to be some slight irritation, too little to induce the individual to have the nuisance abolished. The result is a leakage of nerve-force, a loss that prevents the individual accumulating a reserve, inducing that irritable weakness we term *erethism*. Slight causes induce explosions of temper, that by a normal person would be unnoticed, and these further exhaust the already scanty supply of vitality.

It is immaterial whether we set down fecal toxemia as an etiologic or a semeiologic feature, it is always present as cause or effect; and if the latter, it contributes to the aggravation of the original malady. The influence of a strain of fecal toxins in the blood upon the delicate extrasensitive nervous cells can not but be harmful. Health to the nerve-centers and nerve-fibers means a plentiful supply of nutriment in the shape of pure, clean, normal blood.

That the emotions, sentiments, and beliefs may be tinged and influenced by such a toxin, is abundantly evident to the reader of Samuel Johnson, Carlyle, and other of the great morbid grouches. There is a story told of Voltaire, that one day, after comparing sentiments with an English lord, the two came to the conclusion that life was not worth while and agreed to commit suicide next morning. The Briton came to the appointment on time, but Voltaire excused himself with the remark that "his bowels had moved meantime." If the mental functions can be so powerfully influenced by fecal toxins, where is the difficulty in attributing to the same cause a similar interference with the physiologic functions, as presided over by the nerves?

The First Therapeutic Duty is, therefore, that thorough cleansing and disinfection of the alimentary canal we inculcate as a routine measure, and which is always applicable, except in the few cases where specifically contraindicated. No matter if there is a troublesome and debilitating diarrhea; if the urine tests show the presence of skatol or even of indican, there is retained fecal matter that must be dislodged, while reaccumulation must be prevented.

But here we come upon the *leading principle* in the treatment of neurasthenia: the quick exhaustion of the patient's excitability, and consequent depression, following very moderate doses. Cathartics suitable for ordinary persons can not be given to neurasthenics. The mildest laxatives and intestinal tonics are to be employed, and then very cautiously; these to be aided by similarly cautious abdominal massage and passive exercises. The enema is a cause of rectal debility.

Intestinal Regulators.—After the bowels have once been emptied by colonic flushing and saline laxatives, they may be regulated by the smallest doses of cascarn, or the combinations of aloin, strychnine, atropine, capsin and emetin, that will induce one daily evacuation. This is to be taken in three doses, to secure a tonic rather than a stimulant action.

Tests of the urine should be made, to ensure full action. It is a nice bit of work to meet this need exactly.

The next indication is to *find the leak* and mend it, whatever it may be. Many an abnormality is so trifling that the patient refuses to believe it has aught to do with his ill health. Treat whatever you can find that needs treatment, no matter if there is no obvious connection with the symptoms.

The Restoration of Nerve-force would seem to demand that prince of nervines, strychnine. But here again we meet the difficulty of quick exhaustion of reactive power. Only the smallest doses are advisable, and generally we shall do better by substituting the milder brucine. Even of this, 1-2 milligram every one to four hours is better than large doses three times a day.

If the patient requires iron or quinine, as he usually does, the same principle of very small and frequent dosage is applicable. Many of these patients do better without arsenic, in truth, often have been drugged too freely with this potent remedy. One milligram of quinine hydroferrocyanide with each dose of brucine is a good average dose. Let these be taken on the tongue, in granule form, and allowed to dissolve and be absorbed thence.

Dietary Regimen.—Then always improve the chance of a little extra gastric strength, by giving a little food within twenty minutes, when the toning of digestion is at its height. Give but an ounce or two of some soft, easily digested food, such as that particular patient craves and can digest. Artificial digestants should always accompany the food, to initiate the digestive process, a thing more difficult in neurasthenia than the completing of it when once begun. The vegetable digestant papayotin is of great value, but sometimes hydrochloric acid and pepsin do better. Here also the small dose of acid must rule.

To Improve Vital Powers.—Quite frequently it is well to give the vital powers a little boost by a week of zinc phosphide; a centigram one hour before meals, so as to prevent its decomposition by the gastric juice and the development of phosphoreted-hydrogen eructations. Then follow with lecithin for the rest of the month.

The use of nuclein should be governed by the blood examination. If the leukocytes are scanty, put 10 drops of nuclein solution on the tongue four times a day, to be absorbed from the buccal mucosa. So, also, if the red corpuscles and hemoglobin are below par, the ordinary food may be reinforced by several small doses daily of bovine, sanguiferin, or some similar product. The materials are so nearly homologous with the blood that they are assimilated with less difficulty. This renders the raw white of egg a useful article of diet.

The same rule of speedy exhaustion applies to the no-drug therapeutics. I have seen many cases of neurasthenia turned out from the masseurs and electricians worse than they went there. One of the worst cases that ever applied to me came from an institution where they "used no drugs." The lady went to bed, and remained there a week before she had recovered sufficiently to feel like getting up and dressing. Her exhaustion was pitiable. Nevertheless these things are very useful adjuncts to a well-devised drug and dietary treatment, when applied sensibly. Beware of the enthusiast.

The management of a neurasthenic is a matter of months, even of a year or more.

Be content to make haste slowly, with a little evident improvement in place of a little evident decline. Many a slip will follow rashness and disobedience. Rebuilding a decaying body is no slight or easy task. The causes that induced the exhaustion will confirm it if permitted to remain in operation.

WILLIAM F. WAUGH.

Chicago, Ill.

COMMENT ON THE LESSON

Treatment of Gout.—We have quoted from Dr. W. C. Post, Maquoketa, Iowa, very many times, but we feel sure that our readers are interested in what the doctor has to say. We quote this month from his paper on the treatment of gout. He outlines his method of medicinal treatment for an acute attack as follows:

"Calomel, 1-6 grain; bilein, 1-8 grain; podophyllin, 1-6 grain, every half hour for six or eight doses, followed by a full dose of effervescent magnesium sulphate, this last to be kept up every morning until convalescence. Veratrine, 1-134 grain, every two hours, well diluted, with the addition of aconitine, 1-134 grain, if temperature is high. Calcium sulphocarbonate, 10 grains in solution every two hours till stools have a normal odor, then four times a day. Colchicine, 1-67 to 1-33 grain at night, in solution, for its specific effect, varying dose according to gastric or intestinal disturbance. If pain is very acute, add 10 grains of aspirin to the doses of calcium sulphocarbonate. Apply spiro-sal, betula oil (oil of wintergreen) to the joints and wrap with cotton or wool. Give plenty of pure but not cold water. Do not use sodium salts in acute gout, but salts of calcium and magnesium preferably, as these best neutralize the intestinal and hemic acidosis which precipitates the attack."

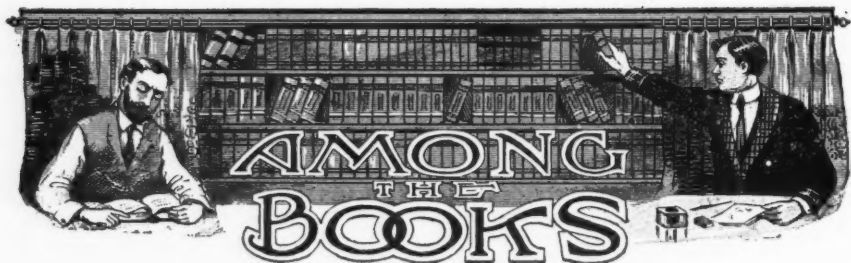
We again quote from Dr. Ernst, Bridgewater, Nova Scotia, to give his method of treatment of gout:

"I had a case last winter, in a widow, age 44, who consulted me for hives, as she thought. Examining her urine, I found the excretion of urinary solids very much below

normal. Uric-acid crystals were found in the sediment. The woman was very plethoric, had a great appetite, but was unable to take much exercise in the open air. I found it necessary to cut down her diet to milk, eggs, fruit and vegetables, for about two weeks; and of that only enough to satisfy hunger. The woman followed her work all through the treatment. Every night at bedtime enough pilocarpine was given to produce slight sweating; some nights veratrine, gr. 1-134, was also given. The bowels were kept quite free with calomel, podophyllin, and salines, given on the Abbott plan; and enough sulphocarbolates were given to keep the stools sweet and clean. A calcalith tablet was given, with a glass of water, every four hours during the day. All the medicine was given 'to effect.' It required about three weeks to remove the trouble, and patient continued to take the medicine for about two weeks longer. It is now about four months since the attack, without any signs of the trouble returning. Patient lost several pounds during the time she was taking medicine."

EXAMINATION QUESTIONS

1. What is neurasthenia? What causes it? Outline briefly its most important symptoms.
2. Differentiate carefully between neurasthenia and hysteria.
3. Give the relationship between neurasthenia and the occurrence of indigestion, telling of the characteristics of the cases of "nervous dyspepsia", so called.
4. Outline the "rest-treatment," telling us what American physician first made this treatment prominent. Describe hydrotherapeutic measures which are of value.
5. What relation does autotoxemia bear to neurasthenia, and what therapeutic measures do you suggest for its correction?
6. What tonic medication would you advise? What two drugs are, in your opinion, most generally useful? What drug, frequently given in these cases, is generally contraindicated?
7. Outline a dietary scheme for a neurasthenic woman who is below her normal weight.
8. Describe a case occurring in your own practice, and tell how you treated it.



KNOPF'S "TUBERCULOSIS"

Tuberculosis as a Disease of the Masses, and How to Combat It. International Prize Essay. By S. Adolphus Knopf, M. D. New York. Seventh American edition, thoroughly revised and greatly enlarged. 1911. Price, single copy, in paper, 25 cents; 20 or more copies, 20 cents each; postage extra; 50 or more copies, 15 cents each, postage extra. Elegantly bound in cloth, 50 cents each, postage prepaid; 20 or more copies, 40 cents each, postage extra.

It is not necessary to introduce to our readers Professor Knopf's well-known prize essay on tuberculosis, because in its earlier editions it has had a circulation probably wider than any other publication of the kind, not only in this country and in Europe, but all over the civilized world. The monograph has been published in 27 foreign editions and in 24 different languages.

The present edition is more than half as large again as the first one, and presents in brief and clear terms the practical results of tuberculosis study so far as they are of interest and value to the laity. We would certainly advise our readers to order for their patients a number of copies of this excellent little pamphlet and to be sure and study it themselves.

The Bookworm has consulted the little volume quite often and always found it of valuable assistance, both in his popular essays and in his talks to the laity on tuberculosis. He acknowledges gratefully his indebtedness to Dr. Knopf, than whom nobody in this country does more to teach the people how to live so as to prevent the acquirement of consumption and, if

the disease is actually established, how to live so as to check its advance and also how to prevent the spread of infection.

BUTLER'S "PHYSICIAN DETECTIVE"

The Exploits of a Physician Detective. By George F. Butler, M. D. Chicago: The Clinic Publishing Company. 1908. Price \$1.00.

The Bookworm has repeatedly written in encouragement of outside reading for physicians, that is, reading of nonmedical books, and has emphasized the interest which we naturally feel for books written by physicians and for those concerning physicians.

Turning the pages of Dr. Butler's detective stories, during a few leisure moments, the writer was impressed with the psychologic problems involved in them. To mention only one, the first story deals with a phase of religious mania in a cultured and refined woman that makes even murder appear a pleasing sacrifice to the Almighty. Every physician has seen enough instances of mental aberration to grant that such *outré* things can really happen. Dr. Butler has told these stories in a very fascinating manner, and the readers of *CLINICAL MEDICINE* will do well to secure a copy.

THE PRESCRIBER

The Bookworm was recently favored with the bound fourth volume of *The Prescriber* (1910). This is a most excellent little monthly journal, edited by Thomas Stephenson, F. R. S. E., F. C. S., 137 George St., Edinburgh.

While the volume does not, of course, lend itself to review, we wish to say that we

have throughout the year read and consulted the monthly copies of the journal with considerable interest and advantage. The editorials are distinguished by their erudition and conservative progressiveness, if we may use this paradox; the abstracts from current scientific literature are complete enough to serve their purpose and in many cases even complete enough for research-workers. *The Prescriber* has set itself the task of following and recording the therapeutic progress, and this task is excellently accomplished. The subscription price of only 5 shillings a year is low, and the value received is immense. We congratulate Dr. Stephenson on his splendid little journal.

"STATE BOARD EXAMINATION QUESTIONS"

State-Board Examination Questions and Answers of Forty-one States and Two Canadian Provinces. Third Edition, revised and greatly enlarged. New York: William Wood & Co. 1910. Price \$3.00, net.

A book of which a third edition is called for, only three years after its first publication, does not need any recommendation. The fact speaks for itself. The volume before us is a practical work, giving authentic questions and authoritative answers that will prove helpful in passing state-board examinations. The text is reprinted from *The Medical Record*.

ALBRIGHT'S "RECTAL DISEASES"

A Practical Treatise on Rectal Diseases: Their Diagnosis and Treatment by Ambulant Methods. By Jacob Dissinger Albright, M. D. With 32 plates, 4 of which are in colors, and 39 illustrations throughout the text. Published by the author, 3228 North Broad Street, Philadelphia. 1909. Price \$4.00.

The author of this volume is well known to physicians through his numerous writings, which all have the purpose of aiding the general practitioner in enlarging his usefulness and in improving his condition. In his "The General Practitioner as a Specialist," a book which has passed through several editions, much information

and encouragement is given, tending to make office practice both successful and remunerative.

In the present volume Dr. Albright deals with one particular field of medical activity which cannot be said to be overcrowded, and which yet promises, not only fair, but excellent returns for one who acquires the proper qualifications. The treatment of rectal diseases by ambulant methods is important because of the well-known fear of the hospital and of general anesthetics and because of the natural reluctance to being "shelved" even for a few weeks.

Any book that comes from Dr. Albright's pen carries its own recommendation. We do not feel the need of discussing the author's views beyond saying that they are well presented. Diagnosis, etiology, and treatment of the various rectal and anal diseases are clearly set forth, without any undue recourse to "laboratory language" which to many practitioners would be worse than Greek. The book is intended for the practitioner and is well calculated to be of great assistance to him.

COCROFT'S "GROWTH IN SILENCE"

Growth in Silence. By Susanna Cocroft. Published by the Physical Culture Extension Society, Chicago.

This little booklet, adorned with the well-known picture of Miss Cocroft, is a pretty collection of "good thoughts" such as are claimed by many to be conducive to obtaining and preserving health. And who shall gainsay this assertion? Physicians have, until in quite recent years, been altogether too oblivious of the importance of the mental attitude and peace in securing health, and the lesson has, in fact, been taught us, not by physicians, but by lay men and lay women.

Miss Cocroft's picture has for years been a familiar one in the better class of popular journals, pointing out the advertisements of her physical-culture courses, and if we are to judge the efficiency of her teachings from their effects upon herself, we must confess that she looks younger today than she did years ago.

Miss Cocroft evidently belongs to the "don't-worry club" and insists strongly on the necessity of mental repose for the attainment of physical health. But in other ways, too, her advice is sound: "A well-poised mind finds its physical expression in head erect, the back of the neck nearly straight, the shoulders level, the chest and lungs well developed, the spine nearly straight to the waist, and the hips well back—the whole being expressing uprightness, a tendency to reach upward, to lift one's very being to the heights—this is the expression of freedom, mental, moral, and physical." Verily, physicians might properly pay a little more attention to mental repose, and might learn some valuable and useful lessons from so-called irregular practitioners and "physical culture cranks" (save the mark!).

BARNESBY'S "MEDICAL CHAOS AND CRIME"

Medical Chaos and Crime. By Norman Barnesby, M. D. Mitchell Kennerley, London and New York. 1910. Price \$2.00.

For a long time we could not bring ourselves to read this book through, and cannot to this day see the *raison d'être* of such a publication. If it is intended for the public, it is muck-raking of the worst kind, because it would then tend to discredit the medical profession at large, through the sins of the few, to a degree and extent which in its ulterior consequences would needs have to reflect unfavorably on the health of the public; since, after all, physicians (and by physicians we mean the regular profession) are the proper guardians of the public health.

If the book was intended as a warning cry to the profession, it was needless, because, as has been pointed out in *The Critic and Guide* some time ago, almost all the evidence which the author collected with a zeal and energy worthy of a better object was taken from medical publications, showing that the profession is entirely and fully awake to the existence of the black sheep within its fold and that the serious-minded and honest members of the profession are doing their best to improve

irregularities and to weed out, not only the unfit, but also the unworthy.

It, then, appears to follow that the book belongs to that class of publications which would better not have been written, and, frankly, we have a strong suspicion that the ulterior motive was not an entirely disinterested one, whether for financial reasons or from the desire for notoriety. We absolutely fail to see how a book of this character can do any good.

The evils which are pointed out are well known, are best known to the profession, are discussed and condemned, and the men who are guilty of them are made to feel that they are guilty. It is unfair to single out one class of men who, in the vast majority of its members, are upright, honest and sincere physicians, and to condemn them as a class for the sins of the very, very few.

The gentle art of muck-raking is rather a contemptible pastime, and we sincerely wish that the book had never been written, and having been written, that it had not found a publisher.

ACHARD.

FORD'S "REGIONAL ANATOMY"

Handbook of Regional Anatomy. By Francis C. Ford, A. B., M. D. Published by the author. Chicago. 1910 (1216 Masonic Temple). Price \$1.50.

A useful work, containing much information in small compass.

LOWRY'S "TRUTHS"

Truths: Talks with a Boy Concerning Himself. By E. B. Lowry. Chicago: Forbes & Co. 1911. Price 50 cents net.

This is a companion volume to "Confidences; Talks with a Young Girl Concerning Herself," and attempts to do for the growing boy what "Confidences" accomplishes for his sister.

MUSSER-KELLY'S "PRACTICAL TREATMENT"

A Handbook of Practical Treatment. By Many Writers. Edited by John H.

Musser, M. D., LL. D., and A. O. J. Kelly, A. M., M. D. Vol. I. Philadelphia: W. B. Saunders Company. 1911. Price, cloth, \$6.00 net.

To judge from the list of contributors, this handbook, which is to consist of three volumes, will form one of the most valuable additions to the physicians' libraries. Particular stress is laid on the various chapters upon the practical phases of the subjects considered; for while, as the authors say in the preface, there is in medicine an art and a science, the practising physician's chief concern is with the art rather than the science. His preeminent function is to preserve or prolong life and to mitigate suffering. His major interest is centered in the practical treatment of disease, all else conducing thereto (etiology, pathology, diagnosis) being tributary, a means to an end. Quoting from the Preface:

"The fore part of the work is devoted to a discussion, from a general viewpoint, of various therapeutic measures; the latter part, to the special treatment of the many general and local diseases. The subjects discussed from a general viewpoint comprise prophylaxis, diet, drugs, exercise, massage, mechanotherapy, psychotherapy, hydrotherapy, balneotherapy, climatotherapy, aerotherapy, electrotherapy, and radiotherapy, as well as other miscellaneous, well-known and justly prized therapeutic measures; but, in addition, emphasis has been laid upon certain sorts of specific therapy, which, resulting directly from painstaking scientific study and investigation, especially in the domain of pharmacology and chemistry, have enhanced the art of medicine and materially augmented the resources of therapeutics—such as organotherapy, serum therapy, bacteriotherapy, vaccine therapy, and chemo-therapy."

The 909 pages of the first volume contain 23 chapters discussing as many different subjects, such as prophylaxis, dietetics, drug treatment, serum therapy, organotherapy, electrotherapy, radiotherapy, climatotherapy, etc., so that it is practically impossible to review the volume as a whole. However, the reviewer was particularly interested in the introductory chapter by

Dr. Musser, on The Fundamental Principles of Therapeutics.

The author, in this chapter, discusses in a masterly and attractive manner the nature of disease and the mechanism of the organic resistance to disease or to the agencies which may be productive of disease. From a consideration of the biologic defense set up by the organism against anything that may exert an injurious action upon it, he passes on to a description of the morphologic and the physiologic expressions of disease and to the exogenic causes of disease. The defense of the organism is discussed in a particularly interesting manner, and the discussion is certain to assist the physician greatly in obtaining a clearer conception of the fundamental principles underlying the production and course of disease from which the means taken to combat it may be elaborated. The aids to the defenses of the organism which are then discussed form a general dissertation on therapeutics, and Dr. Musser's conception of treatment is attractive, to say the least.

The modern researches, not only in physiology and pathology, but still more in biology, have solved so many problems and have given us such a beautiful insight into the workings of the normal as well as of the diseased organism, that the problem of treatment of disease no longer constitutes merely a question of what drugs to prescribe or what mechanical agent to employ. The task has become a much larger one, but we are correspondingly better enabled to meet conditions which we find and to assist the organism in restoring physiological or normal conditions, thereby to remove the cause of disease and eventually the disease itself, i. e., to cure it. For the accomplishment of this end this work offers an excellent guide the careful and continued study of which must immensely benefit ourselves directly and our patients mediately.

SOME BOOKS ON GYNECOLOGY

Gynecological Diagnosis. By Walter L. Burrage, A. M., M. D. With 207 Text Illustrations. New York: D. Appleton & Co. 1910. Price \$6.00.

This is an important contribution to medical literature, the more so as the author, to quote from the preface, has "attempted to keep in the background the rare diseases which are of so much interest to the specialist and to give prominence to the common affections usually met by the general practitioner." In this attempt he has fully succeeded. The usefulness of the book is increased by chapters on diagnosis of the diseases of the bladder, the rectum, and the breast. These affections often are closely linked with strictly "gynecologic" disturbances and are justly included in the textbook, which is designed as a clinical guide for the general practitioner. A further important chapter is that on constipation, the treatment of which is excellently given.

A Text-book on the Practice of Gynecology, for Practitioners and Students. By William Easterly Ashton, M. D., L. D. With 1058 new line drawings illustrating the text, by John V. Alteneder. Fourth edition; revised and enlarged. Philadelphia: W. B. Saunders Company. 1910. Price, cloth, \$6.50.

Ashton's "Gynecology" does not need an introduction. It is sufficient to announce that a new enlarged edition has appeared. Some of the additions are interesting, as for instance the employment of magnesium-sulphate solution in erysipelas of the vulva, the appreciation of straight-front corsets against the harmful old-fashioned forms. The author's technic of giving colonic flushings is interesting. The book is very complete, presenting, from all possible points of view, the diseases peculiar to women and considering both medical and surgical procedures of treatment.

Diagnosis and Treatment of Diseases of Women. By Harry Sturgeon Crossen, M. D. Second edition, revised and enlarged. With 744 engravings. St. Louis: C. V. Mosby Company. 1910. Price, cloth, \$6.50.

The author's endeavor has been to present clearly and in detail the foundation facts and principles of gynecology, collecting in one volume the anatomic, pathologic, diagnostic, and therapeutic in-

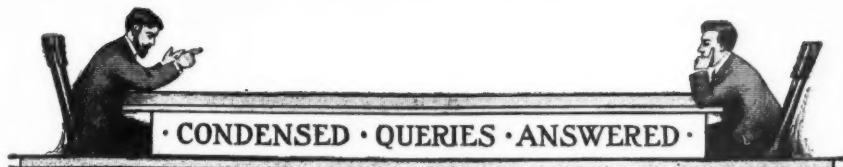
formation underlying successful gynecologic work.

Two hundred pages of text and fifty original illustrations have been added. The index, upon which the practical usefulness of a medical book so largely depends, has been greatly amplified, so as to include references and cross-references to every diagnostic and therapeutic item. In the new text special attention has been given to the presentation of pelvic inflammation and of tubal pregnancy—two live and important subjects, upon each of which an enormous and chaotic mass of information has accumulated. Properly to emphasize the established landmarks and to point out important features of advance work, such was the task. Disturbances of function merit, and have received, careful and detailed consideration, both from the diagnostic and therapeutic standpoint.

Medicolegal complications are claiming more and more attention each year, and those having a bearing on gynecology are considered in a detailed and practical way.

LIPPINCOTT'S "INTERNATIONAL CLINICS"

Among articles of immediate interest in "International Clinics," Vol. I, 21st Series, 1911 (J. B. Lippincott Company. Price \$2.00) are the papers on Pellagra, by Zeller; "606," by Wechselmann; Poliomyelitis, by Mills, and Neff; Raynaud's Disease, by Beck; and Mosquito Work in the Canal Zone, by Le Prince. Reilly's chapter on the treatment of typhoid fever is less satisfactory. Ostheimer contributes a useful and up-to-date article on Modern Infant Feeding. Mills actually devotes two and a half pages to the treatment of poliomyelitis, telling of a number of expedients he has found to be of little or no use. Neff gives a lot of interesting data on the Philadelphia cases. The best of the papers is Le Prince's account of the work down along the Canal in combating the mosquito. This essay is excellently illustrated.



PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

QUERIES

QUERY 5713.—“The Radical Cure of Hemorrhoids.” G. T. S., Texas, wants to know what is the best operation, in a country practice, for the removal of hemorrhoids.

We have several times, in the past few years, recommended strongly the injection-method, pointing out clearly the effectiveness and simplicity of the procedure and absence of danger. Most failures reported in the past have been due to imperfect technic or the use of too weak or complex solutions. We have yet to see the patient who does not prefer injection to excision or the ligature, and if the work is properly done, there is no detention from business or pain worth mentioning. Many men go straight from the office to their work and never lose an hour's time.

However, all piles are not suitable for injection. External piles should be incised and the clot turned out. If the tumor is of any considerable size, a stitch or even two may be used to close the incision. Inflamed mucous tags should be snipped off.

Few practitioners care to use the knife, while the clamp and cautery are out of the question. The ligature, properly applied, is infinitely preferable to this procedure. However, considerable pain follows even the most skillful use of the ligature, and retention of urine is not infrequently noticed. Of course, you are familiar with the details of this slight operation, and, occasionally, pedunculated tumors are encountered which may advantageously be tied off. Such tumors, however, in the writer's opinion, should be removed with the scissors after

the ligature has been firmly tied. The mucosa in every case should be incised and the ligature placed exactly in the incision. If any hemorrhage follows, which is rare, the stump may be touched with pure carbolic acid.

During the past five years the writer has injected practically all internal hemorrhoids coming under treatment, using a strong solution of carbolic acid in olive oil or purified sperm oil, in the proportion of 3 to 2, making sure of a pure product. (Merck's or Mallinckrodt's have proved thoroughly satisfactory.) The mixture should be warmed before injection and the syringe thoroughly sterilized in boiling water. When adding the crystallized carbolic acid to the oil, liquefy by heat. Some operators use glycerin as a diluent, but, in the writer's opinion, the latter is too hygroscopic to prove satisfactory. The addition of glycerite of lead, or of ergot, hydrastin, tannic acid, to the solution is undesirable. Unquestionably the best results follow the intelligent use of the formula mentioned.

The practitioner should realize that cleanliness is of primary importance, and only enough fluid should be injected thoroughly to coagulate the contents of the tumor. The external parts should be cleansed with soap and an antiseptic, then swabbed with alcohol.

Lubricate the canal, and, if any constriction of the sphincter exists, dilate—if necessary, under primary anesthesia. The patient should now be placed on the side opposite to that on which the piles are located and the speculum inserted

gently, the Brinkerhoff or Matthews being perhaps the best for the purpose. The tumor to be operated upon should project downward through the opening in the speculum when the slide is withdrawn. The patient should strain at this point and the operator make quite sure that the entire tumor is in view.

Fill an all-glass syringe, of a capacity of 20 minims, with the fluid, attach a 20- or 22-gauge (or slightly coarser) needle (the exact size of the needle is immaterial providing it is not less than an inch long and permits the free exit of the fluid); elevate the syringe, express a small quantity of the fluid, wipe off the needle, lubricate the hemorrhoid with carbolated vaseline, and quickly thrust the needle into the pendent tumor *half way between the base and apex*. The point of the needle should not penetrate further than to the center of the hemorrhoid. Inject the fluid drop by drop, gradually changing the direction of the point and withdrawing it slightly as the tumor whitens. As soon as the tumor is blanched and hard, the needle may be withdrawn slowly, a last drop of carbolic solution being deposited just within the mucous coat. It takes five minutes, as a rule, thoroughly to treat an ordinary hemorrhoid. If on withdrawal of the needle blood follows, more of the solution must be injected, the needle preferably being inserted at another point.

Some hemorrhoids are multilocular and a portion of the tumor remains unblanched by the injected fluid. In such cases the needle must be inserted into the unaffected cavity (it is usually small) and a few minims of the carbolic solution injected. The largest tumors can be destroyed with 20 minims of a strong oil solution of carbolic acid properly injected. Weak solutions and punctures of the intestinal wall have caused nine-tenths of the failures.

If the operation is properly performed, the entire tumor up to its base will now be white and hard. Two or three ordinary-sized hemorrhoids may be injected at one sitting, preferably those upon one side of the intestine. The bowel should finally be well lubricated with a soothing ointment or antiseptic oil and then kept inactive

for twenty-four hours. After this period a purge should be given and the patient instructed to inject, before going to stool, an ounce or two of olive oil, which may contain a minim or two of carbolic acid or other antiseptic. Carbenzol or a similar ointment may be used advantageously. After stool the bowel should be thoroughly irrigated with salt water and more of the ointment inserted; preferably with a rubber "pile pipe," warm.

Rarely a patient complains of pain; if he does, a suppository containing extract of hyoscyamus or a little morphine may be ordered. Ninety patients out of a hundred require no attention whatever and follow their usual vocations.

If the tumors injected have been large and proctitis coexists, the patient should remain in a recumbent position for a day or two after injection. The bowels should be kept lubricated, a hot enema following each stool. Phenolphthalein and compound licorice powder, in the proportion of 1 grain to 5, if given at bedtime, will produce a soft, mushy evacuation next morning. From 10 to 20 grains is the dose for an adult.

Theoretically, small tumors should be injected first, but as a matter of fact, if one or two large hemorrhoids are injected, the smaller ones usually disappear spontaneously. Hydrastin, hamamelin, and esculin, 1-3 grain each, should always be given three or four times daily.

In very rare cases secondary hemorrhage occurs. This can be controlled by packing the rectum with gauze smeared with an ointment containing an extract of suprarenal gland, or a fairly strong solution of hydrastin and thuja may be injected. The deep ulceration which has been complained of by some operators never appears unless the fluid had been injected into the bowel-wall. There is no excuse for such an "accident," and if the technic outlined herewith is followed closely, the tumor will drop off without the occurrence of suppuration or any marked inflammatory symptoms.

It is hardly necessary to point out the desirability of thoroughly opening the bowels a day or two prior to the operation.

The importance of thorough dilatation of the sphincter ani has already been pointed out.

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 QUERY 5714.—“Brachial Neuritis.” W. H. C., Tennessee, has a patient suffering from brachial neuritis since last August. She is forty-seven years old, married, and has a family. The affection was variously diagnosed in her home town, but she did not improve and came under our correspondent's care in April. At that time her condition was as follows:

She suffered with pain at night in her right shoulder and arm, and felt pain on any start or sudden movement; there were tender spots at various places along the course of the nerves, hand being swelled and burning, fingers semiflexed and helpless; they were painful on any attempt at passive motion beyond a limited range; knuckles were enlarged and reddened. Although she was generally cheerful, there was a drawn look on the face from constant pain.

Treatment, at first, was eliminative and antirheumatic, then tonic. Galvanic current (positive pole) to tender points, negative to the hand; vibratory treatment to muscles of arm and shoulder.

At present her general health is excellent and she has no pain at night; tender spots are gradually disappearing; hand is more nearly normal in appearance, but the fingers, although somewhat more flexible than at first, are not regaining their usefulness as rapidly as could be wished, and she is still sensitive to changes in the weather, having what she calls “rain-pains” in the affected arm. Motion in the shoulder-joint is lessened, so that she cannot raise the arm, but the elbow has good action.

Brachial neuritis, we all know, proves rebellious to treatment in a great many cases. The question is just what caused it in this case. If a neuroma exists, it should be recognized, and an operation may be essential. When the circumflex nerve is affected, there is inability to raise the arm, considerable wasting of the muscles, and there may be localized anesthesia. The musculospiral is more often paralyzed than any other nerve, its position rendering

it particularly liable to pressure. If the nerve is affected, we get wrist-drop, finger-drop (inability to extend the hand on the forearm). The first phalanges of the fingers and thumb are also involved. Sensory symptoms vary. There may be slight impairment or a tingling, burning sensation.

You do not give any history of the arm being injured. Neither do you say that a tumor or aneurism exists. Look into the case thoroughly, doctor. As we are aware, exposure to cold occasionally produces neuritis. Neuralgic pains in the neck and shoulder usually precede more definite symptoms of nerve involvement. Primary brachial neuritis usually occurs after middle life, especially in individuals with a gouty history (uric acidemia). In such cases we have paroxysmal or continuous pain, increased by any movement of the arm, tenderness on pressure over the affected nerves.

Faradization, or, better, the use of the sinusoidal current, proves useful, and we have secured some remarkable results from the application of guaiacol and methyl salicylate, rubbed in well after sponging the affected arm with a hot solution of epsom salt. Internal treatment depends to a great extent upon the conditions present. Nucleinated phosphates, neuro-lecithin and macrotin are always indicated. Elimination must be maintained. What are the pelvic conditions here? Is the menopause over? Upon receipt of further data, we shall be pleased to make further and more definite therapeutic suggestions.

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 QUERY 5715.—“Obstinate Nasal Hemorrhage.” A. V. P., Pennsylvania, asks: “Is there any cure for a girl 25 years old who has obstinate nose bleeding? Nothing seems to aid her. She has had repeated attacks of late and nearly bleeds to death before the flow stops.”

In all cases of nasal bleeding, locate, if possible, the hemorrhagic area. It may be necessary to cauterize a small ulcer or erosion. Are any other members of the family “bleeders”? What conditions are revealed by the nasal speculum and reflected light? Is the girl full-blooded or anemic? Is the hemorrhage always from

the same nostril? Does the bleeding occur at definite intervals?

Atropine in small doses and the application of adrenalin chloride on gauze or cotton should be tried. Iron-alum may be insufflated or applied in strong solution. It is not a difficult matter to stop the bleeding, once the source is discovered. It may be necessary to plug the posterior nares. Calcium lactate and calcium chloride may be given if examination reveals any blood abnormality.

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 QUERY 5716.—“Another Attack on Calomel.” W. H. Y., Arkansas, propounds the query, “Is calomel harmless?” and to prove its toxic character, he recites the case of one of his town’s best citizens. This man was being chilled with malarial shakes, but nothing else, apparently, ailed him. Calomel was taken and salivation produced, with resulting sloughing of the gums and loosening of the teeth on the fourth day. Within twelve hours thereafter, he complained of difficulty in breathing. This continued for about twenty-four hours, and ended fatally in acute edema of the lungs with suffocation.

One more victim of the king cure-all! Sighs the doctor: “Pass it up; but the calomel M. D. will never ‘pass it up’ long. Inconsiderate therapist! It is the inevitable tendency of the human mind, when it is always exercised on the same problem, to become automatic in its operation. Hence, many doctors prescribe it in a routine manner, which supplies a remedy for every bodily ill, in exchange for a penny in the slot.”

Like most attacks upon calomel, this is a “blow in the dark.” You ask whether calomel is harmless, and then answer the question in the negative, by quoting the results following the administration of unknown quantities of this drug in a case of malaria. You simply say: “G. G. [age and general physical condition not mentioned], chilling with malarial shakes; calomel was taken; salivation produced, with sloughing of the gums and loosening of the teeth, on the fourth day.”

How much of the calomel was given? Why calomel alone? Upon what ground,

doctor, do you base your conclusion that the edema of the lungs was due to the calomel? Is it not possible that the chills and “malarial shakes” evidenced the oncoming of pulmonary congestion?

Calomel given intelligently is one of the most useful remedial agents we have; so, for that matter, are aconitine, strychnine, gelseminine, and many other toxic drugs. We should not think of giving a whole grain of strychnine or half a grain of aconitine. Neither should we give calomel in large doses without flushing the intestinal tract immediately afterward with a saline. The large dose of calomel is not used by the modern practitioner. We know now that 1-6 grain, given at half-hourly or hourly intervals until six doses have been taken, will produce all the desirable results of the drug without the possibility of salivating or in any way injuring the patient.

Because calomel unwisely exhibited affects the system inimically, it does not follow that the small dose given at intervals, to effect, where indicated, should not be employed. We have for many years fought the large dose of mercurials, and urge the doctor, in season and out of season, to give small quantities of calomel or blue mass at short intervals, the usual maximum dosage being 1 grain of calomel, or 2 grains of blue mass and soda. In every case we advise the subsequent administration of a laxative saline. We have yet to see salivation or any sign of mercurialism follow such medication.

The routine prescriber is an undesirable member of the profession, and, as you know, the positive therapist’s success is due to the fact that he ignores the names of diseases, but treats the pathologic conditions presented by the individual, giving small doses of the indicated remedy until effect, remedial or physiological.

Use calomel—as you should any potent remedy—in the right way, and you will find it not only harmless but extremely beneficial in a host of pathologic conditions.

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 QUERY 5717.—“Keloid.” E. E. F., Oklahoma, asks for the best method of removing keloid on the ball of the index-finger. One growth has been cut off

several times, but always recurs. This condition was caused from a slight burn about one year ago.

We should be inclined to try injections of thiosinamin in this case, giving at the same time fairly full doses of a solution of the drug internally. (That is, if the patient has no laparotomy scar that might yield.) The injection should be made every third day. In some cases better results follow the injection of the solution into and around the growth.

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QUERY 5718.—“Chronic Urethritis.” L. B. C., Ohio, is treating a case of chronic urethritis which so far has refused to yield. Along the canal for several inches are mucous patches, and the urine is full of mucous shreds. It clears up part of the time, and then will get very bad again. There has been a good deal of pain part of the time, mostly in the prostatic urethra and in the testicles, but that is now considerably better. The mucous patches have been touched up with silver nitrate several times through the urethroscope, but the procedure does not seem to do much good.

In order to cure a case of this kind, it is absolutely essential to be familiar with the basal pathologic conditions. A specimen of urine taken the first thing upon rising in the morning (by the “three-glass” method) and a urethral swabbing should be sent to our pathologist. Just how long has this man been affected? What age is he? Is there any possibility of a mixed infection here? Any strictures? Does he drink alcohol or use tobacco excessively?

An ointment containing methylene-blue and thuja proves efficacious in a great many cases. Silver iodide has also given the writer excellent service. In simple erosions of the urethra, however, euarol is perhaps the very best remedy. There may be an infection of the lacuna magna or sinus pocularis. If so, you will never get rid of the urethritis until the infected area is treated.

How are you equipped for making post-urethral applications? Have you a urethroscope? Give us all the light you can, doctor, and we will serve you to the best of our ability.

QUERY 5719.—“Thrombosis of Veins of Extremity.” W. H. S., Michigan, has under observation a case of thrombosis of the veins of a patient's leg following operation. In June, 1910, Mrs. S. was operated on for cystic ovary and adherent uterus. The abdominal wound suppurated, due to a piece of unsterilized gut. About eight weeks after operation, the left leg began to swell around the ankle, this gradually working upward until the entire leg was involved. The skin was not stretched tight and shiny, but varying from one-half inch to one and one-half inches larger than its fellow. The doctor asks why this thrombosis should come so late, and what would be the treatment.

Thrombosis of the veins of an extremity may follow operation any time within three months. A great deal depends upon the condition of the blood and vascular tone. The condition in this case resembles that occurring in parturition (phlegmasia alba dolens). It is a little difficult to determine just where the occlusion occurred in this case, and whether the thrombi are red or white. As you are aware, the red thrombi form in the blood by coagulation when the circulation through the vessel has ceased, e. g., after ligature or embolism. A portion of such a thrombus may have been carried into the vessels of the extremity and set up the pathologic conditions described.

White thrombi are found in the circulating blood and may be deposited about a damaged vessel or fibrinous blood, which form a surface of attraction for the sticky leukocyte and mikrocyte. These adhere and form a ferment, which causes a further deposition of fibrin from the blood. Obliterating thrombi, those completely filling a vessel, are generally red. Those adhering to a portion of the wall often are colorless.

This woman probably had some varicosity of the vessels. There may have been an excessive fibrin in the blood. The left leg is more often affected than the right. We do not like the symptoms. It must be borne in mind that thrombosis may extend upward and prove fatal. We question, personally, whether the suppurating abdominal wound had anything to do

with the subsequent thrombosis, unless the deeper structures were involved. As we are not thoroughly familiar with local and general conditions, we can not express an intelligent opinion as to the ultimate cause.

The treatment, at this late date, will have to be based, to a considerable extent, upon a clear understanding of the body-chemistry. Have specimens of this woman's urine and blood examined. Arsenic iodide may be given in small divided doses, and nuclein pushed. Bathe the leg with a hot carbolized solution of epsom salt (epsom salt, 2 ounces; water, 3 pints; carbolic acid, 10 minims). Then apply gentle pressure with a woven elastic bandage. The bathing should be repeated twice daily. We should also be inclined to massage the limb thoroughly but gently with antiseptic oil. Hamamelis has been advocated, but we have never been able to get any appreciable results from its use.

Upon receipt of clearer data, doctor, it will give us pleasure to make further suggestions. State especially whether the patient is a prima- or multipara; also prior conditions of the extremities. Has she varicose veins? Is there any renal or cardiac lesion?

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QUERY 5720.—"Treatment of Infected Wounds." G. L. J., Minnesota, desires an outline for the most effective plan to treat what is, by the laity, called "blood poison," resulting from a scratch or wound produced by a rusty nail and the like. He further asks about the time it takes for the symptoms to manifest themselves, the course and duration.

Punctured wounds, if deep, should be laid open wide and then irrigated with a 1 : 2000 bichloride solution and then covered with a sterilized or bichloride dressing, without suture or adhesive strapping. If a foreign body remains in the wound or the presence of poisonous substances or of bacteria is suspected, open up the tissue freely and irrigate with an antiseptic, then dress as described. Infected wounds should be carefully washed out with a germicidal solution (creolin, bichloride of mercury 1 : 2000, etc.), then dress with a moist

antiseptic dressing. Alcohol dressings are gaining in favor. If, despite such dressing or for the lack of it, the wound, in a few hours, becomes inflamed and painful, and evidences of lymphatic involvement show themselves, the wound should be thoroughly cleansed, opened up if necessary, and the surface sponged with a 2-percent solution of formalin, 1 : 2000 bichloride, or 30-grain solution of chloride of zinc; then covered with antiseptic gauze.

The bowels should be kept open, and intestinal and systemic antiseptics (the sulphocarbolates, calcium sulphide, nuclein, echinacea) freely administered. An antiseptic oil may be applied advantageously to incised or infected wounds. The parts should first, however, be cleansed thoroughly with a bichloride, alcohol or formalin solution.

When on examination it is found that suppuration exists, the pus is evacuated, the parts are irrigated with hydrogen dioxide until froth ceases, then cleansed with boric-acid solution, and finally pure carbolic acid is applied—one minute—and this neutralized with alcohol. Or pure oil of turpentine (Merck) may be swabbed over the surface and into the cavities. A dressing of gauze, saturated with antiseptic oil should then be applied.

Thorough drainage is the most important part in the treatment of infected wounds. The skin surrounding the lesion should be wiped with oil of turpentine and scrubbed with antiseptic soap, then washed with a bichloride solution. Any dirt or sloughing should be removed with forceps and scissors. Then into the depths of the wound introduce a few strips of iodoform or bismuth formic-iodide gauze, to secure drainage.

Do not attempt to bring together the edges of an infected wound. If there is much discharge, dry dressings may be applied; but if the discharge is ropy or viscid, moist antiseptic dressings prove preferable. By this method it is possible to convert a septic wound into an aseptic one, and the treatment of aseptic wounds is too well known to need description. For further information, see Wharton's "Minor Surgery," or any similar book.